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ABSTRACT

The Bilingual Education Project for the Yup'ik Eskimo was funded under Title VII (ESEA) and in fiscal year 1975 operated in seven Alaskan villages. Some 425 children in grades K-3 received bilingual instruction in the village schools of Aleknagik North Shore, Atmautluak, Bethel, Kongiganek, Manokotak, Togiak and Twin Hills. Materials were developed by the Yup'ik Eskimo Language Workshop and included materials for use in Yup'ik as a first or second language. At some schools such as Aleknagik N.S., English was the dominant language of most of the children and was used as the medium of instruction. Students in Kongiganek were taught all subjects in Yup'ik and English was taught as the second language. When taught as the second language, English instruction was carried out an hour a day in the first grade, two hours a day in the second, and three in the third. Tests given at the end of the year indicate the bilingual approach for monolingual Yup'ik children is more effective than a non-bilingual approach. It presents such extra advantages as the children gaining literacy skills in the Native tongue, beginning school in the home language, learning from a Native teacher who brings other relevant cultural traits to the learning situation, and being part of a program supported and esteemed by parents and the community. This document summarizes such activities as materials development, teacher training, meetings, test results, program objectives, and program evaluation. (DS)

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INTERIM AND FINAL REPORTS

of the

BILINGUAL EDUCATION PROJECT IN YUP'IK ESKIMO

FY 75

A joint Project of
Title VII (ESEA) and
Alaska State-Operated School System

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Submitted to
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This report contains summaries of activities funded by Federal Grant No. OEG-0-70-3471, the Bilingual Education Project in Yup'ik Eskimo FY 75, and the Alaska State-Operated School System. The opinions expressed in this report are those of the author only, and do not necessarily reflect the views of the United States Office of Education (Bilingual Education), or the Alaska State-Operated School System.

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OCTOBER 1975

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INTRODUCTION

The Bilingual Education Program in Yup'ik Eskimo, funded under Title VII (ESEA), Federal Grant No. OEG-0-70-3471 for FY 75, operated in seven Alaskan villages under the direction of the Alaska State-Operated School System's Bilingual Education Department. These villages are: Aleknagik North Shore, Manokotak, Togiak and Twin Hills in the Dillingham Region, and Atmautluak, Bethel Elementary and Kongiganek in the Bethel Region.

The following table shows the enrollment by grade for each of the schools that were in the program for Yup'ik Eskimo in FY 75:

	Grades				Totals
Schools	K	1	2	3	
Aleknagik N.S		1	3	3	7
Atmautluak		4	8		12
Bethel	68	62	87	89	306
Kongiganek		5	6	11	22
Manokotak		7	8	13	28
Togiak		15	9	15	39
Twin Hills	3	2	2	4	11
Totals	71	96	123	135	425

This year marks the end of the Title VII five year funding for the Bilingual Education Program in Yup'ik Eskimo. Continuation of the program in each of the above villages will have to depend on State funds, or other funding sources, for which they might be eligible.

The rest of this report will deal with activities of the program for the seven villages named above for FY 75. The activities will be discussed within the Project Time Line outlined for the pro-

gram in the following manner:

A. Interim Report (July 1 through December 31, 1974)

B. Final Report (January 1 through June 30, 1975)

I would like to express my gratitude to the following people in the Alaska Unorganized Borough School District for assisting me in getting the information together for this report: Dr. Dick Bower, Hazel Silfven, Jeanne Dyer, Connie Nelson and Debbie Bianco.

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INTERIM REPORT

(July 1 through December 31, 1974)

The bilingual Education Project in Yup'ik Eskimo for FY 75 received $187,000 under Federal Grant OEC-0-70-3471. Of this amount, $170,000 was already approved by State Legislative Budget and Audit for expenditures, but the balance had to be submitted for approval from the same committee since it was an "increased appropriation." Final approval was not obtained until mid-May, 1975.

In addition to the delay in the release of the extra funds, an administrative change was made. The director of the project as indicated in the proposal was replaced by the former Director of Learning Support Services for the same school district, Mr. Wood, in July, 1974.

Apart from these happenings, the project got underway. This report is, therefore, an account of the activities which were specified to take place from July 1 to December 31, 1974. Other activities connected with overall program objectives will be discussed later in the final report.

According to the Project Time Line on p/24 of the continuation proposal for Bilingual Education Project in Yup'ik Eskimo, the following should have been completed during this interim period:

1. Materials Development
2. Teacher Inservice Training
3. Check on arrival of Instruction Materials
4. Classroom Instruction begins about the first week of September

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5. Administer Cultural Test and get baseline data for Grade One
6. Meet (Director) with Coordinators, Materials Development Staff, Evaluator and Superintendents
7. On-site visits (Director)--Obtain written reports from all Supervisory Staff
8. Financial Report from Kuskokwim College
9. File Quarterly Report with U.S.O.E.
10. Evaluation of first semester's objectives.

A summary on the status of each item above follows:

Materials Development

Development of materials for use in the Yup'ik as a First Language (YFL) and Yup'ik as a Second Language (YSL) programs was done by the Yup'ik Eskimo Language Workshop, formerly known as the Eskimo Language Workshop. Irene Reed, the Director of the Workshop, made quarterly reports of the materials development to the Director of the Bilingual Education Department in the Alaska State-Operated School System.*

These reports contain a summary of the activities of the Workshop, any travel made by staff which was charged against the A.S.O.S.S. account: No. 265-7401,+ equipment and/or supply purchases, a list of employees whether they be full-time or part-time, and a bibliography of the materials produced for the quarter that was reported.

The following is a summary of the bibliographies of Yup'ik materials printed during the first and second quarters:

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*Reports for the first and second quarters are on fiel in the Bilingual Education Department of A.S.O.S.S. in Anchorage, Alaska.

+Money to pay for this account came from A.S.O.S.S. coding 19-11-3-118-04000, Bilingual Education Project in Yup'ik Eskimo funded in part by Federal Grant OEG-0-70-3471 for FY 75.

FIRST QUARTER:

Date	Grade Level	Title in English	Number of Pages	Number of Copies
July 1974	2	The Moon and the Sun	10	600
August 1974	1	Spelling I	18	500
August 1974	2	Spelling II	18	500
August 1974	3	Spelling III	18	500
August 1974	1	Pictionary	28	500
September 1974	1	Traditional Travel	9	500
September 1974	2	Traditional Travel	18	500
September 1974	3	Traditional Travel	8	500
September 1974	2,3	Water is Everywhere	18	500
September 1974	1	Barges	8	500
September 1974	2,3	Barges	11	500

(In addition, the Workshop printed pre-and post-tests for ESL and Yup'ik for September, mathematics materials, phonics material, the first in a series of Let's Spell in English, various components of the ESL program, and Umyuangutet, an assemblage of teaching "ideas" by MacDiarmid.)

SECOND QUARTER:

Date	Grade Level	Title in English	Number of Pages	Number of Copies
October 1974	1	Wheels	16	500
October 1974	1	Our Clothing	29	500
October 1974	2,3	What Season Is It?	20	500
October 1974	1,2,3	How Are You Johnny?	11	500
October 1974	2,3	Is It Day or Night?	16	500
October 1974	1	Dirty Water and Air	14	500
October 1974	1	Water is Everywhere	16	500
October 1974	1	Water in all Forms	10	500
October 1974	1,2,3	Be Careful!	12	500

October 1974	1,2,3	My Health Book	10	500
October 1974	1,2,3	Our Lungs	18	500
October 1974	1	The Willow Ptarmigan's Photo Album	12	500
October 1974	2,3	The Sky	16	500
October 1974	1	Airplanes Help Us	12	500
November 1974	2,3	The Scattering of Seeds	15	500
November 1974	3	Our Original Food	26	500
November 1974	2	Pollution	14	500
November 1974	3	How Will I Take Care of My Land	16	500
November 1974	1,2,3	Frostbite	13	650
November 1974	2,3	Wool Blankets	13	500
December 1974	2,3	E.W. Nelson	29	500
December 1974	2,3	Father Francis Barnum	23	500
December 1974	1	A Drop of Water	12	500
December 1974	2	Water in all Forms	10	500
December 1974	1,2,3	Trading	24	500
December 1974	1	Our Original Homes	25	200
December 1974	1,2,3	Guns and Knives, Their Care and Safety		
December 1974	1,2,3	An Accident that Occurred in Very Cold Weather	21	650
December 1974	2,3	Producer, Consumer	13	500
December 1974	1	The Nail's Surprise	15	500

(In addition, the workshop printed pre-and post-tests for October, November, December and January, new mathematics materials, phonics materials, and ESL materials.)

Discrepancies between the Workshop's production and the proposed materials development time line as shown in Appendix B of the original

proposal will be discussed in the final report.

Teacher Inservice Training

Inservice training for teachers took place from August 12 to August 24. Only the Native Bilingual Instructors were included in this training. They were:

Village	Participant
Aleknagik North Shore	Dora Gauthier
Bethel	Agnes Nellie Lewis
	Hilda Olick
	Helen Nicorai
Manokotak	Anecia Alakayak
	Henry Alakayak
	Vera Gloko
	Michael Gloko
Togiak	Anuska Ayojiak
	Moses Kritz
	Evelyn Coopciak
Twin Hills	Moses John

Joe Coolidge, Joe Alexie, Paul Ilutsik, and Irene Reed came to Dillingham to conduct the workshop which included literacy training for new participants, and additional training in methods and orientation to the Yup'ik Course of Study was given to experienced instructors. A detailed report of the activities at this workshop which was combined with training for thirty-two other instructors in J.O.M. programs administered by the Bristol Bay Native Health Corporation was filed by the author with the director of Bilingual Education at A.S.O.S.S.,

Anchorage, Alaska.*

Another meeting of the bilingual instructors including the ESL teachers from all villages with the exception of Bethel and Aleknagik took place in Togiak on September 30th to October 5th, 1974. In attendance were:

Participant	Village	Grade
Helen Stewart	Togiak	1st grade teacher
Anuska Ayuijak	Togiak	1st grade teacher
Evelyn Coopchiak	Togiak	2nd grade teacher
Esther Saucerman	Togiak	2nd grade teacher
Moses Kritz	Togiak	3rd and 4th grade teacher
Helen Mireau	Togiak	3rd and 4th grade teacher
Zada Braun	Manokotak	1st and 2nd grade teacher
Henry Alakayak	Manokotak	2nd grade teacher
Vera Gloko	Manokotak	1st grade teacher
Anecia Alakayak	Manokotak	3rd and 4th grade teacher
Phil Braun	Manokotak	3rd grade and principal
Ruth Travers	Twin Hills	1-3 grades teacher
Moses John	Twin Hills	1-3 grades teacher
Morris Mochin	Atmautluak	1-3 grades teacher
Karen Fluegal	Atmautluak	1-3 grades teacher
Cathy Ricci	Kongiganak	1-3 grades teacher
Agnes Lewis	Kongiganak	1st grade teacher
Evon Azian	Kongiganak	2nd grade teacher
Zach Ivan	Kongiganak	3rd grade teacher

*Tupou L. Pulu, "A Summary of Activities Conducted by the Bilingual Program Specialist at the Dillingham Bilingual Workshop--A Report to the Director of Bilingual Education." (September 3, 1974), Mimeographed.

This gathering worked on specifying activities for the Yup'ik Course of Study which the Yup'ik Eskimo Language Workshop printed in the summer. Handbooks were going to accompany the Yup'ik Course of Study which listed topics to be covered daily for grades 1-3 but which specified activities that were not self-explanatory. The handbooks were not forth coming and the person who was going to develop them, Mr. Jim MacDiarmid, was employed full time by the Bureau of Endian Affairs (B.I.A.). Therefore, he went around to all of the B.I.A. sites to explain things orally to their teachers, thus leaving the A.S.O.S.S. teachers with no further help.

The teachers worked and learned from each other as they discussed the activities for the topics, made changes in the sequencing of certain topics, and suggested books and other materials produced by the Yup'ik Eskimo Language Workshop for inclusion in their proper places in the curriculum. A complete report of the activities at this workshop was filed with the Director of Bilingual Education at A.S.O.S.S., Anchorage, Alaska.*

The decision not to include the two villages of Bethel and Aleknagik North Shore at this meeting in Togiak was regrettable. These villages had fared worst of all since they had received no materials of any kind from the Eskimo Language Workshop. Even though the other villages had received no ESL or Yup'ik as a Second Language materials, they had at least received Yup'ik as a First Language materials. Bethel and Aleknagik North Shore were not even that fortunate. However, realization of the plight of

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*Tupou L. Pulu and Mary L. Pope, "Bilingual Education Workshop in Yup'ik Eskimo Curriculum Planning Held in Togiak, Alaska." (September 30th to October 5th, 1974) Mimeographed.

Bethel and Aleknagik North Shore came too late in the year for help to be provided.

Check on Arrival of Instructional Materials

The Director of Bilingual Education, Mr. Wood, and the Bilingual Program Specialist, Miss Tupou L. Pulu, travelled to Manokotak on September 5th, 1974, on the first leg of a journey to check on materials and other matters connected with the program in the various villages. They found out in Manokotak that the teachers were having problems with the Yup'ik Course of Study because of the insufficient information it contained. It was there also that they found out the Yup'ik Eskimo Language Workshop was not going to print the needed handbooks as promised and that Mr. MacDiarmid was not going to visit the A.S.O.S.S. schools but would teach the B.I.A. schools only.

The decision to hold the Togiak Workshop discussed under Teacher Inservice Training came as a result of this visit. The visit was shortened after the findings in Manokotak, and only a one hour meeting was held in Togiak where again the same concerns were encountered. Then the visitors went on to Bethel, Kongiganek and Atmautluak. Everything was confirmed in Bethel and the visits to the other two places were made only to determine when would be the best time to hold a curriculum planning session.

The Director of the Yup'ik Eskimo Language Workshop was very concerned over the fact that the teachers changed some of the sequence of topics outlined in the Yup'ik Course of Study. She was afraid that the Workshop would not be able to meet both the demands by A.S.O.S.S. and the B.I.A. expecially when both school agencies approved a materials production time line proposed by the Workshop on September 15th in Fairbanks, Alaska. This time line followed

the Yup'ik Course of study as outlined by Mr. Jim MacDiarmid. All of the teachers and the Bilingual Program Specialist agreed at the Togiak Workshop that the Yup'ik Eskimo Language Workshop should follow the previously approved time line and they (the teachers) would do what they could to cover the materials in their new curriculum as best they could.

All materials for September, with the exception of the handbooks for grades 2 and 3, were at the schools. After September, although the Eskimo Language Workshop tried to send the materials on time, they were usually three to four weeks late. This was not as serious as it sounds. There was too much content in the course of study and this caused the teachers to be a month or so behind schedule also.

Classroom Instruction Began About the First Week of September

All the schools were in session as of the first week of September. The teachers and the grades they taught were shown under the Teacher Inservice Training for the activity that took place in Togiak. In addition, the following teachers and instructors were also working:

Aleknagik North Shore	Dora Gauthier	all grades
Bethel	Hilda Olick	K-3, YSL
	Helen Nicori	K-3, YSL
	Esther Green	K-3, YSL
	Agnes Nellie Lewis	K-3, YSL

The number of students enrolled in each grade for each school is shown in the Introduction. All students had these program types at each school:

Aleknagik North Shore

Dora Gauthier taught YSL to all students following a

program very similar to the one Alegik had in 1973-74. That is, the students were taught a lot of cultural things including the making of different Native items, the learning of games and songs, the telling of stories and the demonstration of various Native activities by the people of the village. English was not taught as ESL because it is the dominant language of most of the students. The students, therefore, received instruction in all subjects from the regular teacher, assisted by Dora, using English as the medium of instruction.

Atmautluak

Morris Mochin taught first and second graders in all subjects using Yup'ik as the medium of instruction. The same group received instruction from Karen Fluegel in ESL using some of the same topics they covered in Yup'ik with Morris.

Bethel

All the students in Bethel in grades K-3 were enrolled in the regular classes of the elementary program. Yup'ik as a Second Language was taught to these same students by Hilda Olick, Helen Nicori, Esther Green and Agnes Nellie Lewis.

Kongiganak

Students in grades 1-3 in Kongiganek were taught all subjects in Yup'ik. Kathy Ricci taught ESL to the same students with one hour in grade one, two hours in grade two, and three hours in grade three. Sometimes, the Yup'ik teachers taught some Yup'ik literacy to the upper grades.

Manokotak

Manokotak students in grades 1-3 followed a program very similar to Kongiganak with the exception of the first grade.

The first graders were given equal time in English and Yup'ik instead of the usual one hour of ESL. Fourth graders received an hour of instruction in the Yup'ik language.

Togiak

Students in Togiak grades 1-3 followed the same model as Kongiganak. Some of the upper grades, including high school, got some literacy training in Yup'ik, too. The ESL teachers in Togiak used some of the English reading materials produced by the Bilingual Education Department with their students.

Twin Hills

Twin Hills' students in grades 1-3 were taught mainly in Yup'ik by Moses John. Ruth Travers taught ESL but used regular language arts materials for this purpose. She also received some materials from the Bilingual Education Department in Anchorage to use with her students.

All programs with the exception of Bethel and Aleknagik, North Shore, tried to correlate the contents of the Yup'ik Course of Study with the contents for the ESL lessons. All had cultural activities similar to Aleknagik's program.

Administer Cultural Test and Base Line Data for Grade One

This activity was not carried out because of two things:

A. There was no cultural test to administer. Dr. Jim Orvik of CNER at the University of Alaska in Fairbanks received a grant in FY 74 to develop a cultural identity test to use with the Yup'ik students in bilingual education but he did not develop the test. His reason for not developing this test that the Bilingual Education Department depended on using was that he read some recent studies which showed

that American Indian students were not suffering from a low self-image.*

B. Base line data were to be collected by coordinators and the local instructors. Unfortunately, the coordinators were not hired and no communication from the Bilingual Education Department to the instructors and teachers in the program to procede to collect the data was given. Too much trouble with trying to clarify the curriculum and the materials connected with its implementation at the beginning of the school year was also a contributing factor to the non-collection of the base line data.

Meet (Director) with Coordinators, Materials Development Staff, Evaluator and Superintendents

There was only one coordinator for the Yup'ik Eskimo, Mr. Dave Taylor, who only worked part time as he was also responsible for other Federal Programs in the Bethel Region. The Materials Development Staff referred to Irene Reed and Jim MacDiarmaid of the Yup'ik Eskimo Language Workshop and Curriculum Specialist for B.I.A. respectively. There was no Evaluator and the Superintendents were the ones for Bethel and Dillingham Regions. Some of these people were involved in one meeting only. This meeting was held earlier than the one specified in the time line. It was held in Bethel on September 6, 1975. Problems connected with the production of the Eskimo Language Workshop were discussed. The results of this meet- were communicated by telephone and by mail to the Superintendent

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*Personal telephone communication between Dr. Orvik and the author who was the Bilingual Program Specialist at that time.

at Dillingham who did not attend the meeting. Later, on October 2, 1974, the Superintendent of the Dillingham Region visited the Togiak Workshop and a meeting with all the instructors, the Bilingual Program Specialist, and the Materials Developer for the other bilingual programs in the State was held. The Director of Bilingual Education was not present at this meeting.

On-site Visits (Director)--Obtain Written Reports from all Supervisory Staff.

Since no supervisory staff was hired, with the exception of the part-time Coordinator in the Bethel Region, no written reports were gathered. The Director also did not make on-site visits again after the ones he made on September 4th to September 7th, 1975. The sites visited then were Manokotak for two hours, Togiak for one hour, Bethel one and a half days, Kongiganak overnight and Atmautluak one hour. Details of this trip were filed in a report to the Director by the Bilingual Program Specialist.* No one from Central Office visited Aleknagik North Shore during the entire school year.

Financial Report from Kuskokwim College

The financial report from Kuskokwim College was filed with the Director of Bilingual Education. Payments of invoices submitted in this financial report were made by the Federal Accountant of A.S.O.S.S.

File Quarterly Report With U.S.O.E.

The Director of Bilingual Education did not file written quar-

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*Tupou L. Pulu, "Summary of Activities on Trip to Yup'ik Schools." (September, 1974), Mimeographed.

terly report with U.S.O.E. Bilingual Education. He indicated, however, that he made oral reports on the problems and progress of the programs to Dr. Molina, Director of Bilingual Education in Washington D.C., in Mexico City (November 19th and 20th, 1974). The Federal Accountant prepared a Financial Status Report for the Interim Report. This was given to the Director so he could send it along with his narrative report and he did not send the Financial Status Report either.

Evaluation of First Semester's Objectives

This Evaluation refers to assessing teacher-student objectives. Assessment of these were to have been formative in nature and to have been collected by the supervisory staff. Since no Supervisory Staff members were on board at the regional level, with the exception of the part-time person in Bethel, no data on the attainment of teacher-student objectives was collected until March, 1975. It was at this time that the Bilingual Program Specialist tried to gather some information on these objectives. The following is a summary of what was collected from two villages:

Teachers were asked to rate their children on how well they were doing in the content area. The rating was:

1 = poor

2 = fair

3 = average

4 = good

5 = excellent

The children were rated in five areas:

Phonics

Language Arts

Mathematics

Science

Social Studies

The ratings for each subject on each grade level have been averaged. Ratings were received from Kongiganak for grades 1, 3-8. These ratings are based on Yup'ik as a first language instruction. Grade Four scores are not included here because those students received their instruction in English.

	Social Studies	Science	Mathematics	Language Arts	Phonics
Grade One Number = 5	2.6	2.8	2.2	3.4	3.2
Grade Three Number = 11	4.4	4.3	2.9	3.1	3.5

Using 3.0 as the average score, the chart above shows, in general, the areas where the teachers view their students as being above or below average.

Data for Aleknagik was collected on Yup'ik as a Second Language for each of these topics:

Speech

Animals

Letters

Colors

Numbers

The data was treated in the same manner as that for Kongiganak which is shown above:

	Numbers	Colors	Letters	Animals	Speech
Grade One Number = 1	3	3	4	4	4
Grade Two Number = 3	3.3	4.7	4.7	2.7	5
Grade Three Number = 3	3.7	3.7	4.3	3	4.3
Grade Four Number = 5	3.4	4.9	3.6	4.4	4.6

The record indicates that Content Area Rating Forms were received from Manokotak. However, these forms seem to be lost. No forms were received from Togiak or Twin Hills. No forms were sent to Bethel.

Miscellaneous

Money from the Bilingual Education Project in Yup'ik Eskimo paid for three trips to Fairbanks taken by the Bilingual Program Specialist on July 3rd, August 5th, and September 16th. The first trip was to discuss the contract for materials development with the Eskimo Language Workshop before it made its final move to Bethel. The second trip was made in order to find out what the ARTTC (Alaska Rural Teacher Training Corps) Program was offering that the bilingual instructors could take for credit. The last trip was to meet with B.I.A. and the Eskimo Language Workshop to review the materials development time line proposed by the Eskimo Language Workshop.

The Materials Development Consultant went up to Fairbanks on July 3rd for the meeting with the Eskimo Language Workshop. The Director also made the trip to Fairbanks on September 16th. Half of the charges incurred for the Director's trip to the Inter-American

Bilingual Education Conference in Mexico City was paid out of this program.

This narrative concludes the explanation of activities for this Interim Report. Most of the items included in this Interim Report are a part of some of the activities specified to accomplish the objectives in the proposal. An overall evaluation of those objectives will be made in the Final Report at the end of this paper.

FINAL REPORT

(January 1 through July 30, 1975)

This Final Report of the Bilingual Education Project in Yup'ik Eskimo, funded under Federal Grant No. OEG-0-70-3471 and the Alaska State General Funds, will be made in two major parts:

1. Report on activities specified in the Project Time Line, and
2. Report on the status of each of the activities specified for the accomplishment of each of the program's major objectives as outlined on p/3-20 of the Continuation Proposal for FY 75.

Report of the Activities Specified in the Project Time Line

All the Activities outlined from January 1 through July 30, 1975 dealt mainly with things the Director of the program was supposed to do. They included the following:

A. Holding meetings with all supervisory staff members on January 6, 1975, and June 2, 1975.

B. Receiving reports from the supervisory staff on January 24, 1975, March 25, 1975, and June 25, 1975.

C. Receiving financial reports from Kuskokwim Community College on contracts for materials development by the Yup'ik Eskimo Language Workshop and any other activity dealing with teacher training. These were to have been submitted on January 24, 1975, April 25, 1975, and July 25, 1975.

D. Filing a quarterly report with U.S.O.E. on April 30, 1975, and a final report with U.S.O.E. on July 30, 1975.

A discussion of each of the above areas follows:

Holding Meetings with Supervisory Staff

A majority of the Director's time during this final reporting period was spent in many meetings which began during the latter part

Page 21 blank.

of the interim period with the following:

1. Southcentral Region--Anchorage Community College

Mr. Wood met many times with Dr. Hague of Southcentral Region and with others from Kuskokwim Community College to discuss matters pertaining to teacher training. The final outcome of these meetings was the delivery of a document submitted by Dr. Sam W. Bliss and Charles B. Supplee of Northern Arizona State University on March 21, 1975. This document is called "Bilingual Teacher Training Model, Delivery System, and Evaluation Design for Rural Alaska." A discussion of the major topics in this document was held with the contractors at A.S.O.S.S. in Anchorage. The two contractors were subcontracted by Southcentral Region to do the job.

2. Kuskokwim Community College, Bethel

Many meetings were held with Jan Gibson and Irene Reed to work out training programs for teachers in the Yup'ik speaking villages. The training that was to be provided by Kuskokwim Community College would not be limited to A.S.O.S.S. Bilingual Education Programs. It would also be available to programs funded by J.O.M. under the direction of the Bristol Bay Native Health Corporation.

The training would be held for one week periods during the school year. These one week periods would consist of intensive work on the Kuskokwim campus followed by on-site visits made by the college faculty. These visits would check on assignments which the participants would have taken with them to be completed on the job in their respective villages.

The final result of these meetings was formalized in a service contract between the Alaska State-Operated School System and the University of Alaska, Kuskokwim Community College.* The contract provided for the contractor to conduct a semester-long training program for Bilingual Instructors and ESL teachers in the A.S.O.S.S. Bethel and Southwestern Regions. According to this contract, the teachers and instructors were to attend two five-day workshops in Bethel on January 20-24 and March 10-14.

A report of the work completed by the ESL teachers and the bilingual instructors was filed by Jan Gibson with the Director according to the terms of the service contract.+ Two ESL teachers and five bilingual instructors from Bethel, one from Atmautluak, three from Kongiganak, one from Togiak, two from Manokotak, one from Aleknegik, and one from Dillingham participated in the workshops.

The bilingual instructors worked on improving their own math skills, concepts, teaching techniques for math, and English communication. The ESL teachers participated in the same activities and also enrolled for ED 639 ST Supervision and Training of Paraprofessionals. All had follow-up assignments for completion on the job. Two KCC instructors made follow-up on-site visits to enrollees.

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*This service contract was signed by the appropriate A.S.O.S.S. authorities on March 6, 1975, and it is on file at the Central Office of A.S.O.S.S.

+Jan Gibson, "Report to the Director, Bilingual Education, Alaska State-Operated School System. Bilingual Teacher Training Activities," (March 30, 1975), Mimeographed.

All enrollees in the courses offerred received credits. The coordinator's summary and recommendations, student grades, travel reports and the final billing were included in a second report filed with the Director in July 1975 by Kuskokwim Community College.

Kuskokwim Community College also made another contract with A.S.O.S.S. to provide training for nine Yup'ik as a second language instructors from May 9th through May 13th. This training took place in Bethel. The trainees were all from the J.O.M. programs in the Bristol Bay Area. Mr. Wood spent a lot of his time planning for this training to take place. He made trips to Dillingham to discuss these matters with Mr. Lin Laughy, Southwestern Region Superintendent and Ruth Sharpe, Director of the Bristol Bay Native Health Corporation J.O.M. programs. Other meetings with Kuskokwim College resulted in a proposal submitted by the same institution to the Director for consideration to be incorporated in the Title VII Proposal for FY 76.*

3. Alaska Native Education Board

Meetings were held with members of the Alaska Native Education Board to discuss materials development for the Inupiat and Athabaskan programs as well as teacher training, the Bilingual Education Department's Handbook of Procedures for Bilingual Education, and the planning for a State-Wide Bilingual Education Conference.

Nothing was really resolved in regards to meetings on materials development as both agencies held two different views

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*Kuskokwim Community College, "Proposal for Funding Yup'ik Bilingual Education Program 1975-1976." Mimeographed.

on how materials were to be developed. A.S.O.S.S.'s view was basically a field-centered approach versus A.N.E.B.'s view of an externally developed program. In terms of the content of the materials, A.S.O.S.S. believed in a cognitively oriented program while A.N.E.B. believed in a structural approach to the language programs.

In terms of the teacher training, A.N.E.B. maintained its own education specialists while A.S.O.S.S. tried to combine its efforts in teacher training and materials development with those of the University in order to meet the needs of the instructors. This was exemplified in some of the workshops held throughout the year.

The initial stages of planning for the State-Wide Conference on Bilingual Education came about as a result of A.S.O.S.S. staff's efforts to acquire as many inputs from as many interested people as possible for the development of the Handbook of Procedures for Bilingual Education. The Department of Education was finally asked to handle the details for the State-Wide Bilingual Education Conference.

A final inter-agency meeting to decide on the activities for the conference was held in Juneau on January 23 and 24, 1975. Decision to hold the conference on February 19-21, 1975, was made at this time.

Mr. Wood communicated with the regional superintendents where bilingual education programs were operational to bring in Native bilingual instructors to the Conference. In order to take advantage of travel money, the Bilingual Program Specialist planned a Pre-conference Workshop on evaluation. Forty

participants representing nineteen villages and eight languages participated in the Pre-Conference Wrokshop and the State-Wide Bilingual Education Conference. At the end of the Conference, the Department of Education compiled the recommendations made by the participants in a pamphlet, "The Future of Bilingual Education in Alaska."

4. University of Alaska in Fairbanks

Mr. Wood had meetings with the people at CNER and ANLC at the University of Alaska in Fairbanks. The purpose for meeting with the first group was to find out what it was doing with X-CED, and to determine how some of their courses could be coordinated with the Kuskokwim Community College proposed A.A. and B.A. degrees in Bilingual Education. Another reason for the meetings with CNER was to try to work with them in developing the Title VII Teacher Training Proposal. Most of these meetings were a waste of time since nothing came out of them.

Meetings with the ANLC (Alaska Native-Language Center) were made to enlist the Center's help with literacy training and proofreading. Some of these services were going to be incorporated into the proposal for funding by Title VII.

Meetings were held to deal with A.S.O.S.S.'s reluctancy to release funds to pay for the services of ANLC which had been acquired. A memorandum of agreement was finally made to pay for some of these services from ANLC late in May.

5. Regional Superintendents of A.S.O.S.S. Schools

Mr. Wood was in touch with most of the superintendents in A.S.O.S.S. to discuss with them matters pertaining to the department's handbook, the proposed teacher training using

the Kuskokwim Community College's course outline, surveys on language usage, content of the language programs, and self-concept of the students, and budgets, as well as input for Title VII. Whenever the superintendents were not able to meet with Mr. Wood, messages would be carried by other regional coordinators. Mike Travis, the Bilingual Coordinator for Athabaskan Programs, represented four of the regional superintendents in most of the meetings called by Mr. Wood. Mr. Dave Taylor attended meetings with Mr. Wood.

6. Miscellaneous Meetings

Mr. Wood met twice with the State-Wide Parents Committee for Indian Education. These meetings resulted in the same committee agreeing to serve both the Indian Education Department and the Bilingual Education Department, and it gave its approval for the Bilingual Education Department's tentative proposal for Title VII funds.

Mr. Wood attended the Title VII meeting on proposal writing and the review of bilingual education regulations for FY 76 in Seattle, Washington. This meeting was held on February 2, 1975.

On March 3, 1975, Mr. Wood met with the Tanana Chiefs Conference to discuss the Title VII proposal. This meeting was held in Fairbanks.

These were no meetings held specifically on the dates stated in the time line. The only supervisory staff that Mr. Wood met with on different occasions were Mr. Mike Travis, Mr. Dave Taylor and the regional superintendents.

Receiving Reports from the Supervisory Staff

There was hardly a supervisory staff on board to get reports from, apart from those filed by the Bilingual Program Specialist on the participants at the Pre-Conference Workshop, Jan Gibson's report on the Teacher Training Workshop, and a proposed plan of services from Mr. Dave Taylor.

Most often, reports, both oral and written, were made right after the activities were conducted. They were not made on the specific dates outlined on the time line. Since no one visited the schools, no reports were made on any of the activities of the teachers and the students.

Receiving Financial Reports from Kuskokwim Community College

The Yup'ik Eskimo Language Workshop in making its quarterly reports included a budget sheet with each one. Kuskokwim Community College submitted invoices for the Yup'ik Eskimo Language Workshop's expenditures as well as for other activities pertaining to the teacher training contracts. These reports were not made on the specified dates but at the end of the activity periods.

The Director encumbered $104,000 to cover expenses incurred by the Yup'ik Eskimo Language Workshop and $17,563 for the Teacher Training Contracts with Kuskokwim Community College. These amounts were in excess of the actual expenditures for the activities stated above.*

Filing Quarterly and Final Report with U.S.O.E.

No reports were filed with U.S.O.E. The Director indicated that he made oral reports of the program's status to Dr. John Molina and to Ms. Blanca Westgate during this period.

The Federal Accountant made a final Financial Status Report for

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*Information was obtained from the Federal Accountant at A.S.O.S.S.

the program. This will be accompanied by the present narrative report.

Report on the Status of Each of the Activities Specified for the Accomplishment of Each of the Program's Major Objectives as Outlined on P/3-20 of the Continuation Proposal for FY 75:

Most of the activities specified in the proposal were originally made with the understanding that there would be an adequate staff available to function full-time in the operation of the program. Unfortunately, this was not the case and therefore, most of the data that should have been collected from the field was not collected. There was no one available to see that the activities were really carried out.

The following accounts will attempt to summarize the status of each activity:

A. Activities to accomplish Student Objectives

Objective one: Help to establish a fourth grade bilingual education component for fourth graders in each of the seven villages now participating in the program.

Activity One: Obtain decisions affecting the bilingual education component for 4th graders during the March Bilingual Workshop for Yup'ik Eskimo language teachers and ESL teachers. The school board chairman for each village as well as the principal/teacher of each village school will also attend this workshop and will have a chance to participate in decision making in regard to priorities, time allotments and materials to be introduced. Once decisions are reached, they will be printed in a flyer and distributed to all school board members, regional superintendents of the affected regions and they will also be posted in village public places. Everyone will be invited to react to the decisions and the program will be implemented accordingly.

Comment: A flyer was sent to all people indicated in the activity. No response came back. In checking the programs, all schools with the exception of Bethel had some kind of a fourth grade program. All devoted time varying from thirty minutes to one hour to more literacy in the Yup'ik language.

Objective two: Help to insure students are progressing in their school work and that they are meeting required standards of performance in their academic activities.

Activity Two: Teachers will be required to keep records of pupils' progress and performance on clearly defined behavioral objective scales that will be developed for each concept required to be mastered. These records will be periodically reviewed by Native Language Coordinators and other supervisory staff when they make their regular visits to the school. Teachers will prescribe definite tasks of remediation for students who may be identified as not achieving the desired performance level of proficiency or mastery for any activity.

Comment: No one made regular visits to the schools. Therefore, no one reviewed any lesson plans or records kept by the teachers. A copy of the course of study that the teachers worked on at Togiak was sent to each location, and the teachers followed it, writing out their own objectives. A report of students progress came from three villages only, and therefore, nothing was done to determine how the students in the other schools fared. Communication by phone, letters and conversation between the Bilingual Program Specialist and most of the teachers indicated that most of them were doing something about individualizing their instruction. If this was really the case, then one would assume that the teachers completed this objective satisfactorily for individualization works on the premise

that pupils' progress will be kept and the program is trying to meet the individual student's needs.

Activity Two (b): Teachers may also seek help from the supervisory staff and the students, or parents if they feel that enlisting such assistance will be beneficial for underachievers.

Comments (2b): Some teachers have asked for help from the Bilingual Program Specialist and the Yup'ik Eskimo Language Workshop. Some of the Native-language instructors have asked parents for their help.

Activity Two (c): Teachers will report on children's progress to parents on a quarterly basis.

Comment (2c): All teachers made quarterly reports to the parents.

Objective Three: Assist teachers to help students develop a more positive self-image.

Activity Three (a): Make a monthly report to the teachers of the latest ideas, findings and activities pertaining to the development of a positive self-image.

Comment (3a): This was not done in a formal way. Conversations at times, however, turned to activities related to this item, but nothing was done to provide to the teachers the needed information on findings from other programs.

Activity Three (b): Teachers will be asked to keep anecdotal records on the students' attitudes and classroom manners. These records will be available for reviewing by the supervisory staff of the program.

Comment (3b): This was suggested to the teachers during workshops. Some teachers keep records but there was no way to determine how many since no one went out to review these things.

Activity Three (c): Teachers who have particularly interesting

experiences or successful activities dealing with the acquisition of a more positive self-image will be asked to submit an oral or written report of such activities to the director so they can be shared with other teachers.

Comment (3c): Teachers were asked through the Bilingual Bulletin to submit all articles of interest to other readers for publication. Some articles came and only a few were published in the paper. The rest did not get printed because of the problem already mentioned in connection with the paper. All of these articles told about activities the teachers used with the students and how the students enjoyed them.

Objective Four: Provide the opportunity for self-expression and the sharing of ideas with other students.

Activity Four: Students will be asked to make contributions to a student paper which will be published quarterly and distributed to all schools in Alaska.

Comment (4): Togiak school kids sent in a contribution and it was printed in the Bilingual Bulletin.

B. Activities to Accomplish Staff Development Objectives

Objective One: Assist Native-language instructors and ESL teachers to improve their teaching skills.

Activity One: A two week summer training program will be provided for teachers to learn how to use new materials, improve teaching skills and improve their knowledge in the areas specified for Objective #2 under Staff Development.

Comment (1): This was accomplished.

Objective Two: Help bilingual education staff to gain more knowledge about:

a. the culture of the Native peoples in Alaska.

b. bilingual programs in other areas.

c. research dealing with bilingualism.

d. activities which other teachers have used successfully in bilingual education classes.

e. language teaching methods.

Activity Two: A monthly paper on interesting and informative topics will be published and sent to teachers.

Comment (2): The monthly paper was started and three issues were sent out.

Objective Three: Improve communication between teaching staff members and the community they serve.

Activity Three: Teachers will be asked to make brief notes of contacts with parents of their students. These notes will be reviewed and reported quarterly by the supervisory staff. A Parent Guest Book will be used to keep track of parents who visit the schools, regardless of the pruposes for such visits. The teachers may use this same "book" for their comments of their contacts with people from the community.

Comment (3): This activity was not completely done by all teachers but some indicated they made notes on parents' visits.

Objective Four: Assist and support teachers who want to work on a career ladder program.

Activity Four (a): Provide money for tuition and fees of teachers who want to take college classes through the A.R.T.C.C. Program.

Comment (4a): No one took classes through A.R.T.C.C.

Activity Four (b): Provide needed instructional materials to teachers who want to improve their own skills in Adult Basic Education courses.

Comment (4b): No one took Adult Basic Education courses.

Activity Four (c): Pay for a maximum of 6 credits work for teachers who may want to take them for self-improvement.

Comment (4c): This was done by paying for the tuition of the teachers who took classes from Kuskokwim Community College.

Objective Five: Create a close working relationship between teachers in the field and the supervisory staff of the program.

Activity Five (a): Visit sites and meet with teachers on a regular basis.

Comment (5a): This was not done. Only one visit was made by the Bilingual Program Specialist and the Director.

Activity Five (b): Solicit written and oral suggestions for improvement of various program activities from all teachers.

Comment (5b): The following is a summary of what the teachers enjoyed doing most with their students. Perhaps more activities designed along these lines will motivate students to greater achievement:

a. games for learning a variety of concepts
b. outdoor games
c. field trips
d. creative activities
e. Christmas program
f. taking pictures
g. writing own books
h. making murals of village
i. teacher reading to students
j. listening and reading recorded books
k. P.E. activities
l. linoleum carvings
m. watching films

n. hikes

o. making props for plays

p. making papier mache masks

q. doing book reports

r. doing creative stitchery

s. holding an activity day with village volunteers teaching different things.*

Activity Five (c): Involve teachers in decision making, planning for workshops, etc.

Comment (5c): Teachers were asked to list in order of priority their needs for the workshops. The following is a list of the suggestions prioritized beginning with the most important.+

a. Training in classroom management

b. Teaching methods for math, science and social studies

c. Teaching English in the elementary grades

d. Theory and methods for second language teaching

e. Training in writing curricula

f. Training in materials development

g. Teaching techniques for Language Arts

h. Methods for coping with language deficiencies

Activity Five (d): Share new ideas with teachers through correspondence, telephone calls, etc.

Comment (5d): This was done but not often enough.

C. Activities to Accomplish Material Development Objectives

Objective One: Help to make certain that materials produced by the Eskimo Language Wrokshop are delivered to their destinations at the

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*All of these activities were taken from one of the sections in the Teacher Questionnaire. There were seven questionnaires from the schools in this program.

+Taken from answers to item no. 2 on Staff Development in the Teacher Questionnaire.

proper time.

Activity One: The Eskimo Language Workshop will be requested to submit to the director of the program a copy of listed materials shipped to the project sites whenever such shipments are made. The Project Secretary will check with the school sites on the arrival of shipped materials exactly two weeks after receiving notification of such shipment from the Eskimo Language Workshop in order to expedite a more efficient delivery system.

Comment (1): The first portion of this activity was done. The second part was not done due to the fact that new clerk typists were unfamiliar with what the program was trying to accomplish.

Objective Two: Assist in reviewing all materials produced to make sure that they are appropriate for their intended users.

Activity Two (a): The Director with the help of the Native Language Coordinators and the Bilingual Program Specialist will review all materials produced by the Eskimo Language Workshop. A written report of the results of the review process will be submitted to the Director of the Eskimo Language Workshop.

Comment (2a): This was not completely done. The Bilingual Program Specialist however, often discussed the books with the director of the Yup'ik Eskimo Language Workshop, and sometimes with the teachers who used the books. Evaluation of the books by the Bilingual Program Specialist was limited to the English translations found at the end of each book. These were very often too advanced in readability and contained too many sophisticated concepts for their specified level usage. These concerns were brought to the attention of the director but she claimed that the English was not intended for any use in the beginning grades, and the books were easy

enough for the children.

A different point of view on this was expressed by most teachers in the program when asked by the Bilingual Program Specialist. They said the books were alright if the teacher read them to the kids. The kids have yet to read most of the books independently.

Most of the books were specified for use in grades two and three. It was a pity that no chance was available to determine the readability levels of the books using the cloze procedure test.

Teachers asked for materials to teach beginning reading in both the Native Language and ESL. A summary of the materials development for FY 75 and the discrepancies between the actual production and the proposed production time line as reported by Irene Reed during the fourth quarter now follows:

Time L[illegible] for Materials Development for
Yup'ik Course of Study
1974-1975

PROPOSED:	ACCOMPLISHED:	
In July & August (for September)		
Math: Grade 1		
5 worksheets for classifying sets	5 worksheets	
5 worksheets for types of sets	5 worksheets	
5 worksheets for matching sets	5 worksheets	All present in
5 worksheets for numerals	5 worksheets	Naaguteliuryaraq I
5 worksheets for money	5 worksheets	
5 worksheets for fractions	5 worksheets	
Grade 2-3:		
Odd and even numbers (2 worksheets)	2 worksheets	
Place value-10s and 1s (3 worksheets)	3 worksheets	
Place value- 100s,10s, and 1s (3 wrksheets)	3 worksheets	
Place value - 1000s (3 worksheets)	3 worksheets	
Social Studies:		
Traditional Travel (dog team, kayak, angyaq, canoe)		
Grade 1: A set of pictures with single word	Ak'allaat Ayagassuutet I	
Grade 2: A set of same pictures with simple text [pictures are not the same as Level I]	Ak'allaat Ayagassuutet II	
Grade 3: Same set with more advanced text [pictures are not the same as Level I or II]	Ak'allaat Ayagassuutet III	
Illustrations for transparencies on family (includes all members of typical Yup'ik family, including grandfather and grandmother (for Grade 1)	Both illustrations and black-and-white transparencies completed	
Booklet on Barges applicable to all three grades, with no text for first grade	Paacat I (no text) Paacat II,III (relatively simple text)	
Health: Grades 1-3: Jigsaw puzzles of the ear, eye, nose, teeth, tongue	Individual jigsaw puzzles prepared for ear, eye, nose and teeth (but not for tongue--discarded as bad idea). Matching worksheets idea abandoned as well.	
Matching worksheets for ears, eyes, teeth, skin, for human, fish, seal, etc.		

Science: Grades	
1-3: Booklet "Water Is Everywhere"	
Grade 1: On land (lakes, rivers, ocean, etc.)	Meq Tamiini Uitauq I
Grades 2-3: In plants, air, bodies, food, etc.	Naken Meq Tailarta? (produced last year)
	Meq Tamiini Uitauq II,III
"Water in All Forms" (clouds, rain, snow, hail) with pictorial version for 1st grade (accompanied by single words) and advanced text for grades 2-3.	Mer'em Ayuqucia I Mer'em Ayuqucia II Mer'em Ayuqucia III
Booklet on air adapted for all three grades	Ella I Ella II Ella III
Phonics: Print phonics sheets for vowels (a, i, u, e, aa, ii, uu) and stop consonants (p, t, c, k, q) (illustrations and texts)	Completed as proposed.
In September (for October)	
Math: Grade 1: Domino cards, "One More" Worksheets (5) reinforcing concept, number line, 2 numeral card games, 5 ordinal worksheets, 5 money worksheets, worksheet on fractions, 5 foot and yard worksheets	1 sheet on domino cards, 5 worksheets on "one more" concept, 1 number line to 20, 2 sheets numeral card games, 5 worksheets on fractions, 2 worksheets on "foot" and "yard"
Grade 2-3: Addition and subtraction (sums and minuends 10-18 2 worksheets; associative property:2 worksheets; greater-than,less-than 3worksheets, 5 worksheets on the inch, half-inch, foot and yard (2nd grade) 5 worksheets on inch, half-inch, fourth-inch, foot and yard (3rd grade)	2 worksheets for + and - (sums and minuends 10-18); 3 worksheets for "greater-than, less-than"; 4 worksheets on inch, half-inch, foot, yard; 3 worksheets on inch, half-inch, fourth-inch, foot, yard.
Social Studies:	
Grade 1: Make transparencies produced for family pictures	Done
One set of slides on the family	Commercial materials recommended
Travel Today, a booklet on modern travel with overhead transparencies	Ayagassuutet Maa-i - illustrations prepared but not printed
Traditional Uses of plants - pictorial series	Development postponed- content to be incorporated in book on traditional foods.
Our Clothing (booklet for first grade)	Akluput

Grade 2-3:	
Trapping and cleaning local animals (1 booklet)	Development postponed indefinitely due to lack of research materials
Constellation booklet	Qilak
Eskimo-Athabaskan cultural map (not detailed)	Printed on 8 1/2 x 14 card stock--map based on Alaska Native Language Center report
Jigsaw puzzle map of Alaska based on native groups in the state	Puzzle form of the above.
Health:	
Grades 1-3:	
Booklet on Air and Water Pollution (special formats for each grade)	
Grade 1:	Iqalria Meq Ella-llu
Grade 2:	Pollution-aaq
Grade 3:	Qaillun Aulucigsia Nunaka?
Booklet on Lungs	Pugtauteput
Science:	
Grade 1:	
Book on Colors	Ready for printing, but unable to produce due to lack of all colors and b ecause of insufficient time. YLW will probably print up during next fiscal year. Sufficient materials available in schools for teachers to use.
Adaptation of grade 3 book: Naken Meq Tailarta?	Book used as is, adaptation deemed unnecessary.
Grades 2-3: Detailed illustrations of plants	Detailed illustration of parts of flower and parts of plant, color overhead transparencies prepared of each.
Booklet: "How Are Seeds Scattered?"	Iigupiit Sagtellrat
Booklets on: Muskrat, Fox, Rabbit	Incorporated in book on Alaskan Animals called Nunamta Ungungssii Imarpigmiutaat-llu Special songs were prepared for each of the animals (muskrat, fox, rabbit) to single them out.

Phonics: Appropriate worksheets for nasals in initial position, the vowel e before other than fricatives, initial y,w,s and "helper e" with r and g. Illustrations with texts. — Completed as proposed.

IN October (for November):

Math: Grade 1: 5 worksheets on money as sets and subsets, 5 worksheets on fractions as subsets, worksheets (5) on "1 inch", drawn ruler showing only inches — Completed as proposed — Compiled Naaqutelliur series

Grade 2-3: 4 worksheets showing 2-place addition with renaming, 2-place subtraction with renaming (4 worksheets), 4 worksheets on 3-place addition and subtraction without renaming, 2 worksheets on multiplication factor not greater than 5 — Completed as proposed

Social Studies:

Grade 1: Book on Trading — Naverrniaryaraq

Map of Alaska — Map of Alaska and of southwestern Alaska, Kuskokwim and Bristol Bay areas

Alaska Map Game — Commercially produced, copy provided for each school

Grades 2-3: "Early Visitors to Alaska"

Bering, Nelson, Zagoskin, etc. — Vitus Bering
E. W. Nelson
Francis Barnum, S.J.
Lieutenant Zagoskin (developed, but yet printed)
Father John Veniamenov-aankuk Father Yako Netsvetov-aaq-llu

Alaska Goldseekers — Suulutaarculallret

Health: Grades 1-3:

Skating and Safety on Ice — Mulngakek'ici!
Sneezing, Coughing and Sore Throat — Cangacit Nanugaaq?
Frostbite and Freezing — Qercuaneq Picurlalleq Nengelvagmi

Science:

Grade 1: Ptarmigan Book adapted for grade 1 (adaptation of Aqesgit Yuuciat, developed last year) — Qangqiirem Tarenrautai

Airplanes booklet and set of slides — Ikayularaitkut Tengssuutet
Set of slides on various planes

Wheels and set of slides — Akalriat
Set of slides on various wheels

Grades 2-3:	
Weather booklet	Ellaliuryaraq
Booklet on Seasons	Allrakuq Naimun Ellirta?
Booklet on Day and Night	Erenruuq-gaa Wall'u Unuk?
Constellation Booklet	Qilak
Phonics: Appropriate worksheets for: the apostrophe (significant [marked] gemination), vowel clusters, voiced versus voiceless fricatives (velars only), rhythm and stress rules: atata vs. ataata; atam vs. ataam, etc.	Developed as proposed, but all voiceless fricatives were covered (not restricted to velars)
In November (for December-January):	
Math: Grade 1: 5 worksheets for light and heavy, 4 sheets on pulleys, 1 set of overhead transparencies on liquid measures, individualized thermometers	Developed as proposed
Grade 2: 3 worksheets on fractions, a booklet on the calendar year, overhead transparencies of clock, 5 worksheets dealing with dozens and half-dozens, 5 worksheets on fractions of foot and yard, 5 worksheets on liquid measure (overhead transparencies sets)	Developed as proposed
Grade 3: 5 worksheets on fractions, 3 worksheets dealing with dozens, 5 worksheets on linear measure, ruler depicting less than inch, 5 worksheets on liquid measure	Developed as proposed
Social Studies:	
Grade 1: Booklet on Anchorage with set of slides	Ayalleq Nunarpagmun (set of slides to be provided by Kipnuk)
Old Yup'ik homes (qasgiq) - pictorial - set of overhead transparencies	Nutem Uitaviput (booklet) Transparencies made of large illustrations used in booklet.
Our Food (Yupik foods)	Nutem Neqkauteput
Grades 2-3: Factories (a booklet)	Wool-at Uliit (wool factory)
Producer-Consumer booklet with overhead transparencies	Taqutesta/Akurturta A separate set of transparencies was also produced to accompany the book.
Making Money (Salaries) a booklet	Akingutet
Other communities: Fairbanks and Juneau (set of slides)	Commercially produced slides

Communication: Booklet on Radio, CB, TV, Marine radio, etc.	Communication-aaq
Booklet on local organizations (village level), including school board, village council, etc.	Ikayutaaqutellriit
Health: Grades 1-2-3:	
Care and Safety booklets for	
Snow-machines	Snuukuut
Guns and Knives	Nutget Nuussit-llu Aulukiyarait
	Mulngaakutekait-llu
Illustration of skeleton	Completed
Science: Grade 1:	
Electricity and Magnets (booklet)	Kalluk (electricity)
	Ussukcam Alangaallra (magnets)
Booklet on air and sound	Ella Nepa-llu
Colors (two worksheets on primary colors	Completed (also done for ESL)
Set of overhead transparencies on varieties of salmon	Original illustrations and transparencies made and duplicated
Booklet on the blackfish	Can'giiq
Boiling-Freezing-Thawing booklet	Kuta
Phonics:	
Illustrated worksheets for voiceless fricatives vv, ss, and voiced counterparts, v,s. Clusters of fricatives with stops, p,t,k,q.	Developed as proposed.
In December-January (for February):	
Math: Grade 1: 5 worksheets for time and 5 worksheets for days of week	4 worksheets total for time and days
Grade 2: 5 worksheets for coins 25¢ or less, worksheets (5) on point, line and segment and 5 worksheets on open, simple and closed curves. 5 worksheets on thermometer readings	5 worksheets on money, 5 worksheets on thermometer readings, 5 worksheets on line and line segments, open, simple and closed curves
Grade 3: 5 worksheets on coins ranging up to 50¢ and bills ranging to $20.00. Geometric shapes and 5 worksheets on pounds and ounces.	5 worksheets on coins, 5 worksheets on shapes, 5 worksheets on pounds and ounces
Social Studies:	
Grade 1: Bering, Nelson, Alaska Sourdoughs (picture sets)	Unable to locate picture of Nelson but others completed.
Grades 2-3: Worksheets on equator, north and south poles	Completed with overhead transparencies
Bank booklet	Akiliurvik

Job in Alaska (booklet) e.g., hunter, trapper, teacher, with complete set of slides	Yuungcaristenguyulria (doctor) Yupiaruyulria (traditional hunter) Kipusviliurtengurtarkaq (storekeeper) Uquliurta (oil miner) Akacak Caurculria (teacher) Ellaliurtenguyulria (weatherman) (slides not developed---books are all well illustrated)
Health: Grades 1,2,3	
Illustration of heart, circulatory system	Completed
Illustration of digestive system	Completed
Northern Food Chart (derived from "Our Yupik Foods" Nutem Neqkauteput)	Completed (large color chart)
Science: Grade 1:	
Day and Night	Erenruuq-qaa Wall'u Unuk? Qaillun Erenrem Anirtuumallra
Winter and Summer	Uksuq Wall'u-qaa Kiak?
Animal Chart Booklet (with food, seasonal habitats, swim/walk categorizations) pictorial booklets, no text	Nunamta Ungungssii Imarpigmiutaat-llu (seasonal habitats not detailed, and text is included)
Grade 2-3:	
The Sun book (a seasonal look at the sun)	Akerta
The Life of a Plant (plant anthropomorphized)	Unguvallra Papim
Animals of the Forest	Napamiutaat Ungungssit
Plants of the Forest	Napat (Trees)
Domestic Animals	Nuyurrilnguut Ungungssit
Phonics: Clusters with c,y; clusters with nasals; clusters with l, ll, r, rr, g, rr; clusters with other fricatives: llg, ggl, ngll, ngrr, rrng, etc. illustrated pages for each phenomenon	Developed as proposed.
February (for March):	
Math: Grade 1: 5 worksheets dealing with concept of 'digit' 5 dealing with counting by tens and fives, shapes, 5 sheets on addition of 2-digit numbers, 5 sheets on subtraction of 2-digit numbers; Level 1 Recipe Book	Developed as proposed
Grade 2: Money worksheets up to 25¢, 3 worksheets on thermometer readings, 5 worksheets on point, line and line segment, 5 worksheets on open, closed and simple curves	Omitted, deemed unnecessary by teachers and materials developers

Grade 3: 5 worksheets each dealing with place value to millions, rounding out to nearest 10, rounding to nearest 100, estimating to nearest foot and inch, Roman numerals, hours and minutes and circles	Developed as proposed, except that the number of worksheets developed was reduced to an average of 2.
Social Studies:	
Grade 1: Booklet on factories (pictorial)	Teachers directed to explore commercially produced materials
Fishing Booklets:	
Subsistence	Neqsurtek
Commercial	Kuvyastek
Producer-Consumer - 5 additional worksheets	Already developed when Taqutesta/ Akurturta was printed
Grades 2-3: Solar System and effect on man's life (seasonal especially--booklet with pictorial aides)	Cancelled by MacDiarmid, teachers directed to use commercially produced materials already in most schools
Health: Grades 1-3: Booklet on Basic First Aid	Not done. (Developmental work reported done, but it never materialized.)
Science: Grade 1: Constellation Booklet	Qilak
Tree Book (Spruce, alder, birch, cottonwood)	Napat
A book on movement	Cancelled by MacDiarmid
Grade 2-3: Insect book (heavy on the pictorial side, with supplementary word lists for teachers--selected lists of names embracing dialect variations known)	Ciissit
Booklet: What is a Mammal? (sea and land)	Ayuqenrilnguut Aamalget
Booklet on the Universe with overhead transparencies	Qavangumini Meluum Ayallra (no transparencies developed--book is well illustrated and most schools have resources in general supplies)
Phonics: Sheets for voiced fricatives in clusters (constrative review); stops with m, stops with n	Completed as proposed.
In March (for April)	
Math: Grade 1: Materials for review which will involve the development of new worksheets in many circumstances (based on areas of difficulty experienced by students in program)	No new materials developed as teachers in program began to suggest it was not necessary

Math: Grades 2-3: Preparation of a variety of oral problems, some written for children, others written for teachrs	Not developed as teachers in program preferred to use commercially developed materials
Social Studies:	
Grade 1: Booklet on community helpers	Nunani Ikayurtet
Booklet on traditional tools	Nutem Calissuuteput
Booklet on tools and machines	Calissuutet
Grade 2-3: Travelers to Alaska (booklet about tourism)	Allanret Alaskamun
Exploring the North	development not completed
Early Whalers (introduction)	development not completed
Health:	
Grades 1,2,3:	
Animal Bites - Rabies (booklet)	Ungungssit Keggellrit Usvillugtellriit
Poison (safety and care) - booklet	Tuqunarqellriit
Snowblindness - cause and prevention	Iingineq

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April-May-June

This period of time was devoted to printing any backlog in materials (not all of the items above were printed during the quarters indicated. See bibliography for month in which each item was actually printed), and to the revisions and reprints of revised materials as indicated in the Time Line. There was no free time for the development of additional new materials as hoped. During the last quarter most of the time was spent on revising and reprinting the Criterion Referenced Curriculum Tests, the various handbooks and all other items listed as English titles at the end of the 4th quarter bibliography.

Activity Two (b): Teachers will be asked to submit to the Director of the program a completed review form on every new book produced by the Eskimo Language Workshop. Results of these book reviews will be printed and distributed to all teachers in the program.

Comment (2b): This was not done.

Objective Three: Check to ascertain the fact that materials described in the proposed materials development in Appendix "A" are in fact the ones that will be developed in FY 75.

Activity Three: The Eskimo Language Workshop will be requested to submit to the Director of the program 50 copies of every book published for use in the bilingual classroom. Upon receipt of these copies, the Project Secretary will mail 10 to the State Library, 2 copies to the Alaska Native Language Center, 1 copy each to the local universities, the local Native Corporations dealing with Yup'ik Eskimo speakers, the Director of Bilingual Education in Washington, D.C., the librarian of the Bilingual/Bicultural Dissemination Center, Region XIII, to the political leaders of the Yup'ik Eskimo speaking regions, and the School Board of each village in the program, and 2 copies will be sent to the high school libraries in the Yup'ik speaking areas. The Eskimo Language Center will be responsible for delivering 2 sets of each of these materials to the village resource centers.

Comment (3): This was done by five clerk typist II's who were hired throughout the entire year. It was very hard to keep track of the records they kept of this activity.

Objective Four: Help to distribute printed materials to local agencies and state and university libraries.

Objective Five: Assist in establishing a bilingual/bicultural resource center in each program site.

Activities and Comments for Objectives Four and Five are explained in the activities and comments for Activity three and comment three in the section above.

D. Activities to Accomplish the Parent and Community Involvement Objectives

Objective One: Help the teachers to keep the parents informed of their children's progress in the bilingual program.

Activity One (a): Teachers will hold a quarterly conference with parents to discuss the progress of their children. Brief notes of this conference should be kept.

Comment (1a): All teachers completed this activity.

Activity One (b): Teachers will discuss with parents how their children are doing in school whenever a parent asks for such discussions to be held.

Comment (1b): This was done. Teachers indicated that they have talked with parents at least three times.

Objective Two: Assist teachers in creating activities that will require the active participation of community members.

Activity Two (a): Encourage teachers through correspondence or demonstrations during on-site visits to invite parents often to see new activities, to visit the classrooms, to take students on nature walks, to demonstrate skills needed for making certain crafts and art objects, to tell children's stories, to explain certain beliefs, and to come and enjoy children's dramatic productions, art activities, sport activities, films, filmstrips or slides, etc.

Comment (2a): Not much encouragement was given teachers but they invited the parents to a variety of school activities.

Activity Two (b): Send samples of children's work home for parents to look at.

Comment (2b): Some teachers did this activity.

Activity Two (c): Ask parents to evaluate their children's performance on certain tasks.

Comment (2c): Very few teachers asked parents to evaluate student work. Some even said that the parents were shy in expressing their opinions.

Activity Two (d): Give parents and community members written lists of the goals of the bilingual program in their village and set a date for meeting with them to discuss those goals. Modify the goals according to the desires of the village people. Write up the new goals and gear instruction to accomplishing those goals. One of the supervisory staff members must be present at such a meeting so he can clarify issues that may be unclear or ill defined. The supervisory staff member present must file a written report summarizing the meeting with the director of the bilingual program.

Comment (2d): This was not done.

Objective Three: Help teachers, students and community members to establish a bilingual resource center in the school for school and community use.

Activity Three (a): Meet with the teachers, the school board members, village council members, and any other interested individuals in the community and discuss the establishment of a bilingual/bicultural resource center. Once discussions are completed, plans will be drawn as to the procedures to be followed in starting the center.

Comment (3a): Some schools like Togiak and Aleknagik have show cases where some artefacts were displayed but no meetings were held in the villages.

Activity Three (b): Students will also be encouraged to contribute their time on a volunteer basis to manage the resource center. They will also be invited to help label items, check reading materials out to others, or tutor learners in the Native language. A record of such activities may be kept daily and reviewed quarterly by the supervisory staff. In this way, analysis of the data on how the village people use the resource center can be made, and new changes and additions in policies or materials can be made.

Comment (3b): This was not done.

Activity Three (c): Successful results of methods or activities connected with the resource center will be published in the bilingual monthly paper so other resource centers can benefit.

Comment (3c): This was not done.

Activity Three (d): Each center will be required to submit a brief written description of their newest acquisition of artifacts, cultural items or oral literature to the Director. This information will be shared with other program sites and perhaps exchanges will take place in order to enrich the resource center's collection of historical items of interest and cultural value.

Comment (3d): This was not done.

The implementation of this program component remained weak. It was unfortunate that the personnel badly needed to implement the activities were not available. A close supervision of the program activities is greatly needed. The program operated only because of the dedication and the commitment of the teachers on the local level. A lot of good could have been accomplished had there been some supervision and assistance given from the regional as well as the district levels.

EVALUATION

Most of the evaluation activities were done simply by explaining the items contained in both the Interim Report and the ones above in this report. The only thing that remains to be discussed now pertains to the academic achievement of the students in the program.

Attempts to gather data on the achievement of the children as well as other components of the programs were made in vain from the middle of March to the middle of May, 1974. Internal problems dealing with the over spending in travel funds, the temporary assignment of Mr. Dennis Rheder by the Associate Superintendent to be the head of the Bilingual Education Department, the "in-house" edict by the Acting Superintendent of the District while everyone awaited the Legislature's decision on the status of the school district, and the delay on the release of funds for the Alaska Bilingual Teacher Training Program all contributed to the delay in administer the tests. The approval to administer the tests was finally given in the middle of May.

The Bilingual Program Specialist was unable to go with a Native-Language Specialist and administer the tests but Moses Kritz, bilingual in Togiak, went out to test the children. He was not able to get all the children because most of the schools were already out for the summer. He was able to get all of Kongiganak, some in the three B.I.A. schools of Eek, Kwethluk and Kwillingnok, a few in Bethel and a few in Togiak. In most of the places down the coast, he had to give only part of the tests because of plane schedules. Most of the places were thawing and travel could have been discontinued for days at a time. So he had to get what he could and then get out as fast as he could.

Since Moses was not able to get all the necessary data to make a

comparison study of the effectiveness of the bilingual education program, the B.I.A. was again approached in September to collect data from their villages of Eek, Kwethluk, Kwillingnok and Napaskiak and to compare these to the A.S.O.S.S. schools. B.I.A. refused to grant permission for testing in their schools. Every effort was made to point out the necessity of the study which was designed not only to collect academic data and linguistic data, but affective data connected with student self-concept, student language behavior, parents' attitude towards education, parents' participation in school activities, and teacher's attitude towards education. Analysis of variance would have been performed on these items to determine their effects on the linguistic ability of the student. Reasons given by B.I.A. officials in the Bethel Region for their refusal included the following:

1. The students were over tested
2. The teachers did not want their students to become test-wise
3. Mr. MacDiarmid was giving all the tests the B.I.A. officials wanted
4. B.I.A. did not want someone outside the agency to come in and test their children
5. Testing now would be psychologically damaging to the children since they were really enthused about the new program*

Because of this set back in plans to evaluate the programs, the author decided that the following things should be done to evaluate the A.S.O.S.S. program's academic success of last year:

1. Correct everything that Moses was able to test students on and

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*All four control schools are now in the bilingual program. This switch was made by B.I.A. this school year, FY 76, even after showing for the last two years with tests administered by their consultants that the traditional schools were performing better than the bilingual schools!

discuss them within their limitations. They would still present a comparison picture worth investigating if A.S.O.S.S. ever acquires another Yup'ik school where the children are monolinguals when they begin school.*

2. Compare the IOWA scores of the fourth graders in each of the schools in the program for FY 75 with those of fourth graders in previous years. Since the fourth graders in FY 75 in five of the schools were the first group to have gone through three years of using Yup'ik as a medium of instruction and the other fourth graders in previous years all had their instruction in the traditional way of using English as the medium of instruction, the comparison will give a fairly reliable indication of the effectiveness of the two approaches to education.

The following gives a brief description of the scores obtained by Moses Kritz on the test items that he administered:+

A. Subtests for linguistic achievement included the following:

1. Listening-Speaking Test

This test has a total of 34 identical items in English and Yup'ik. Each item consisted of a set of three pictures which depicted a structural point closely following the Yup'ik grammer. The items increased in complexity from single words to sentences.

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*It is the opinion of the author that the opportunity to determine the merits of the two approaches to education, the traditional vs. the bilingual, in Alaska, is now gone forever, especially where first language programs are concerned.

+These tests were developed as part of a battery of tests to determine linguistic achievement in listening, speaking, reading and writing in both Yup'ik and English.

Listening scores are obtained in a group administration where the examiner gives the stimuli orally and the examinees mark one of the pictures in each set. Speaking scores are obtained by eliciting an oral response from the examinee on the pictures he had marked. This is done individually.* The tests were to be given first in the student's weaker language.

2. Sounds of English

This consists of seventeen items. These items were pairs of words containing initial or final phonemes which a Yup'ik speaker is likely to get confused when he listens to them.

It is a group administered test. The examiner pronounces one of the pair of words. The examinees mark the one he hears the examiner pronounce.

3. Sounds of Yup'ik

This test has seventeen items. A set of three symbols are found in each item. These symbols are the Yup'ik orthographic symbols. The examiner pronounces a Yup'ik sound and the examinees circle one of the sumbols that represents the pronounced sound. It is group administered.

4. English Words and Yup'ik Words

There are six items in this test. The items consist of single words and pictures. The examinees draw lines to match the words and the pictures. The items were identical in both languages.

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*Moses was able to get most of the group administered tests but nothing on the individual tests. This means no scores to determine the speaking abilities of the students.

5. English Letters and Yup'ik Letters

There are seven items in this test which require the students to mark one picture out of a set of three. The picture must have the consonant that is shown with the set as its initial consonant. The test is identical in both languages. It is group administered.

6. English Sentences and Yup'ik Sentences

This test has six items. Each item consists of a written sentence which has to be matched with one of three pictures in the same frame. The testee reads the sentence and marks the picture it describes. The test items are identical in both languages. It is a group administered test.

7. English Writing and Yup'ik Writing

Post cards depicting Alaskan Activities which students are familiar with were coned into four page booklets. The booklets are given to the examinees and they are to write a description of each post card with five minutes allotted to each card.

B. Science and Social Studies

Both of these tests consist of four subtests each. The first three subtests consist of eight items each. The last subtest has sixteen items. The difficulty levels in readability and concepts increase with each higher numbered subtest. This means one is the easiest and four is the most difficult in addition to its having twice as many items.

The tests are group administered. The examiner reads each question and each of three choices. The students mark the best choice.

Every test item was given one point per correct response with the exception of the writing test. The score for the writing test consists of the sum of the morpheme counts per post card.

The number of subjects per grade was not high enough to warrant trying to get any determination of statistically significant levels for any of the scores. Conditions for the test administration varied from place to place so that it is simply impossible to say that existing differences are representative of true ability differences. It is still interesting, however, to look at the scores and make a few observations.

Explanation of Charts and Comments on Test Scores

Chart Number One A shows raw score averages in linguistic abilities of grades 1 and 2 in both B.I.A. and A.S.O.S.S. schools.

Chart Number One B shows raw score averages in linguistic abilities of grades 3 and 4 in both B.I.A. and A.S.O.S.S. schools

Chart Number One Cshows averages by grade for all B.I.A. schools versus those of A.S.O.S.S. In addition, it gives a composite score of linguistic ability by grade level for combined B.I.A. schools and the combined A.S.O.S.S. schools.

The following are observations made on the summary:

English Writing

1. Both grades 1 and 2 in the B.I.A. schools did better than the same grades in A.S.O.S.S. schools. Not all A.S.O.S.S. grades 1 and 2 wrote anything in school, but all B.I.A. students attempted to write something for this subtest. Writing in English in any of the A.S.O.S.S. schools that are in the bilingual program is usually not introduced until the latter part

of grade two or the beginning of grade 3.

2. Both A.S.O.S.S.'s grades 3 and 4 wrote more than the B.I.A.'s grades 3 and 4. There were also Yup'ik writings from the A.S.O.S.S. grades 3 and 4 and they seemed to be equivalent if not better than their English writing.*

Yup'ik Sentences

Only A.S.O.S.S. schools received scores for reading Yup'ik sentences. In comparison with their reading of English sentences, the following can be said:

1. With the exception of grade 2, which definitely read Yup'ik sentences better, there was not much difference between the two scores of the other grades.
2. Grade 3 had the highest reading score.

English Sentences

1. B.I.A.'s grades 1 and 2 read better than A.S.O.S.S.'s grades 1 and 2.
2. A.S.O.S.S.'s grades 3 and 4 had better reading averages than B.I.A.'s grades 3 and 4.

Yup'ik Letters

1. There were no scores on this subtest for grades 1 and 2 of the B.I.A. schools. The scores given for the other two grades cannot be trusted enough to make comparison possible.

   It is interesting to note, however, the scores for the A.S.O.S.S.

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*Although spelling was not a reported score, the writing samples from the students showed greater flexibility in spelling attempts by A.S.O.S.S. students than B.I.A. students. A.S.O.S.S.'s students often used Yup'ik orthography to write English words they could not spell like /klaut/ for 'cloud'.

grades. Grade 1 did almost as good a job of identifying initial phonemes as grades 3 and 4. It did better than grade 2, and grade 3 did better than grade 4.

2. In comparison to English Letters, all grades performed better in identifying English Letters than they did in Yup'ik Letters.

English Letters

All A.S.O.S.S. grades did better than B.I.A. grades in identifying initial consonants in English with the exception of grade one.

Yup'ik Words

1. Scores for B.I.A.'s grades 1 and 2 are missing. The other scores show that A.S.O.S.S. grades 3 and 4 obtained higher scores than B.I.A.'s grades 3 and 4.
2. All A.S.O.S.S.'s grades have higher scores in English Words than in Yup'ik Words.

English Words

1. B.I.A.'s grades 1 and 2 have higher scores than A.S.O.S.S.'s grades 1 and 2.
2. A.S.O.S.S.'s grades 3 and 4 have higher scores than B.I.A.'s grades 3 and 4.

Yup'ik Sounds

Scores for this subtest were available only on A.S.O.S.S. grades. They show that there is hardly a difference between the performance of grades 3 and 4.

English Sounds

1. All B.I.A. grades obtained higher scores than A.S.O.S.S. grades with the exception of grade one.

2. A.S.O.S.S. grades received higher scores in English Sounds than in Yup'ik Sounds.

Yup'ik Sentences

Only A.S.O.S.S. schools received scores for reading Yup'ik sentences. In comparison with their reading of English sentences, the following can be said:

1. With the exception of grade 2, which definitely read Yup'ik sentences better, there was not much difference between the two scores of the other grades.
2. Grade 3 had the highest reading score.

English Sentences

1. B.I.A. grades 1 and 2 read better than A.S.O.S.S. grades 1 and 2.
2. A.S.O.S.S. grades 3 and 4 had better reading averages than B.I.A. grades 3 and 4.

Yup'ik Listening

All A.S.O.S.S. grades obtained higher scores in Yup'ik Listening than all B.I.A. grades.

English Listening

1. All A.S.O.S.S. grades have higher scores than B.I.A. grades except for grade 4.
2. B.I.A. grades 1 and 2 scores for English Listening are much higher than their Yup'ik Listening scores. This case also existed for grade one in A.S.O.S.S.

Composite Linguistic Ability Score

1. With the exception of grade 2 in A.S.O.S.S., all other A.S.O.S.S. grades obtained higher composite scores than B.I.A. grades.
2. The differences in the composite scores of grades 1 and 2 of

B.I.A. and A.S.O.S.S. are very small, but greater differences emerged for grades 3 and 4 with these grades in A.S.O.S.S. obtaining higher scores.

Results in General

Results in general show that A.S.O.S.S. schools did better in English than B.I.A. schools even though English is taught as ESL for an hour a day in first grade, two hours a day in second grade, and three hours a day in third grade. This indicates that teaching English as ESL is more effective than traditional English teaching.

Comparing Yup'ik to English skills in A.S.O.S.S. schools indicates a higher level of proficiency in reading readiness skills in English, yet they read Yup'ik sentences better than English sentences and had higher listening skills in Yup'ik. This can probably be explained by reading readiness activities in ESL. It might also be attributed to the fact that the regular teacher, with college training, teaching certificate, and more experience, is a more effective teacher than the less well trained Native teacher.*

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*Although these tests were not validated and the reliability was not checked, they show results similar to ones reported by T.H. Taylor in 1969: 1968-69 (year five) Findings: A Comparative Study of the Effects of Oral-Aural Language Training on gains in English-Language for Fourth and Fifth Grade Disadvantaged Mexican American Children. Austin, Tx.: University of Texas. This study showed that students who were taught in Spanish were highest on the English oral test.

School	Grade	No.	Writing English	Sentences Yup'ik	Sentences English	Letters Yup'ik	Letters English	Words Yup'ik	Words English	Sounds Yup'ik	Sounds English	Listening Yup'ik	Listening English
*Kwillinganok	1	2	17		5		5.5		4		13	28.5	26
*Eek	1	5			3.4		6.6		4.6		4	9.4	26.2
*Kwethluk	1	3	14.6		4.6		6		3.6				29.6
+Bethel	1	5	2.8		5.4		6.4		4				30.4
+Togiak	1	3	9.7	5	3.7	4.7	6.3	3.7	2.7	9.7	11.7	32.3	28.7
+Kongiganak	1	3		3	3.3	3.3	3.3	2.6	4.3	4	4.6	19.3	32
*Kwillinganok	2	4	33.5		5		6.5		5.5		15	29	31.3
*Eek	2	5	28.4		5.8		6.6		5.8		9.6	18.8	29.6
*Kwethluk	2	5	3.8		4.6		3.6						28.2
+Bethel	2	5			4.8		6.8		6				29.8
+Togiak	2	1	23	6	5	4	7	5	6	15	15	34	32
+Kongiganak	2	6	4.2	4.3	3.6	3.3	5	4	3.6	4	7.3	26.6	27.5

* = B.I.A. Schools + = A.S.O.S.S. Schools

CHART NUMBER ONE A: Raw Score Averages for Linguistic Abilities of Grades 1 and 2

School	Grade	No.	Writing English	Sentences Yup'ik	Sentences English	Letters Yup'ik	Letters English	Words Yup'ik	Words English	Sounds Yup'ik	Sounds English	Listening Yup'ik	Listening English
*Kwillinganok	3	4	34.5		5.6	.5	5.5	2	5.5		15.3	32.5	33
*Eek	3	4	39.5		4		5.3	.5	4.5		16.5	30.8	24
*Kwethluk	3	7	25.4		5.9		6.1		5.6				30.3
+Bethel	3	2	63		5.5		7		6				34.5
+Togiak	3	3	68	6	5.3	5	7	5.3	6	14.7	16	33.3	31.6
+Kongiganak	3	6	20.7	5.8	5.3	4.3	5.7	4.8	6	7.3	10	31.8	32.3
*Kwillinganok	4	4	50.5		5.8	.8	7	1.2	6		16	31.8	32.8
*Eek	4	4	63.5		5.3		7		6		16.3	33.0	32.5
*Kwethluk	4	8	51		5		6		5.5		13.6	30.3	29.5
+Bethel	4				NO SCORES								
+Togiak	4	4	106.5	5.5	5.8	5	7	4.8	6	14.5	17	33	33.3
+Kongiganak	4	8	100	5.6	5.5	4.6	6.5	5.3	5.9	8	10.6	31.9	29.4

* = B.I.A. Schools + = A.S.O.S.S. Schools

CHART NUMBER ONE B: Raw Score Averages for Linguistic Abilities of Grades 3 and 4

School	Grade	No.	Writing English	Sentences Yup'ik	Sentences English	Letters Yup'ik	Letters English	Words Yup'ik	Words English	Sounds Yup'ik	Sounds English	Listening Yup'ik	Listening English	Composite
B.I.A.	1	10	15.8		4.3		6		4		5.7	19	27.3	[illegible].7
A.S.O.S.S.	1	11	6.3	4	4.1	4	5.3	3.2	3.7	6.9	8.2	25.8	30.4	12.0
B.I.A.	2	14	21.9		5.1		5.6		5.7		12.3	23.9	29.7	14.9
A.S.O.S.S.	2	12	13.6	5.2	4.5	3.7	6.3	4.5	5.2	9.5	11.2	30.3	29.8	14.8
B.I.A.	3	15	33.1		5.2	.5	5.6	1.3	5.2		15.9	31.7	29.1	14.2
A.S.O.S.S.	3	11	50.6	5.9	5.4	4.9	6.6	5.5	6	11	13	32.6	32.1	17.4
B.I.A.	4	16	55		5.4	.8	6.7	1.2	5.8		15.3	31.7	31.6	[illegible].1
A.S.O.S.S.	4	12	103.3	5.6	5.7	4.8	6.8	5.1	6	11.3	13.8	32.5	31.4	23.3

CHART NUMBER ONE C: Summary of Raw Score Averages in each Linguistic Ability Subtest and a Composite Linguistic Ability Score for all A.S.O.S.S. Schools versus all B.I.A. Schools

Explanation of Charts and Test Scores (Science and Social Studies)

Chart Number Two A shows raw score averages in science and social studies of grades 1 and 2 in both A.S.O.S.S. and B.I.A. schools.

Chart Number Two B shows raw score averages in science and social studies of grades 3 and 4 in both A.S.O.S.S. and B.I.A. schools.

Chart Number Two C shows averages by grade for all B.I.A. schools versus those of A.S.O.S.S. In addition, it gives a composite score in each subject by grade level for combined B.I.A. and A.S.O.S.S. schools.

The following are observations made on the summary chart discussing only composite scores:

Science

1. All B.I.A. grades performed better than A.S.O.S.S. grades.
2. Differences in the scores of the first two grades are low but high differences exist for grades 3 and 4.

Social Studies

1. All B.I.A. grades obtained higher scores than A.S.O.S.S. grades.
2. Differences in scores for grades 1 and 2 are minimal between B.I.A. and A.S.O.S.S. but high differences exist in grades 3 and 4 between B.I.A. and A.S.O.S.S

Composite Science and Social Studies

These combined scores show that:

1. All B.I.A. grades scored higher than A.S.O.S.S. grades.
2. Differences between B.I.A. and A.S.O.S.S. grades 1 and 2 are minimal.
3. High differences exist between B.I.A. and A.S.O.S.S. grades 3 and 4.

Results in General

The results of the science and social studies tests show the same relationships established in the Linguistic Ability Tests seem to exist but in reverse, favoring B.I.A. schools. That is:

1. Very little difference in the scores of grades 1 and 2.
2. High differences in the scores of grades 3 and 4.

The apparent inconsistency in the reversal of the results of these tests can be explained if these things are taken into consideration:

1. The science and social studies tests were administered in English to B.I.A. schools and in Yup'ik to A.S.O.S.S. schools.
2. The structure of the test items in both science and social studies was mainly one word choices and not complete sentences.

The Linguistic Ability Test scores indicate something of great interest that should have been considered in constructing the science and social studies test and that is: it would seem that the best kind of test structure for the A.S.O.S.S. grades would have been one of these:

1. If test items are to contain one word choices, these should be written in English and not in Yup'ik since the A.S.O.S.S. grades did better in English Words than in recognizing Yup'ik Words.
2. If test items are to contain complete sentence choices, these complete sentence choices should be in Yup'ik since the A.S.O.S.S. grades obtained higher scores in reading Yup'ik Sentences.

The examiner read the test items in each subject to the students. This should have been an advantageous thing for the A.S.O.S.S. grades since they showed higher scores for Yup'ik Listening, and they should have made better choices. Unfortunately, the A.S.O.S.S. grades did not make better choices. Perhaps they were handicapped with the

written responses, but more important is the possibility that single isolated Yup'ik words are plain senseless. The students probably found the test items meaningless. If this were true, the tests did not measure their understanding of science and social studies concepts at all, and that is why we find seemingly conflicting results with the tests that were administered.*

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*The results of these tests confirm the need to test children in both languages instead of only in the language we think they will succeed in. Studies done by J. Macnamara in 1966 and G.R. Tucker in 1970 suggested that bilingual children may perform better in the language in which they were not taught. Further investigations of the influence of linguistic structures in the construction of test items (i.e. how items are worded and what type of test formats are used) and determination of translation equivalency (when translated versions are used) must be made. These factors may be among those that contribute significantly to the present prevalency of conflicting results obtained in connection with bilingual students' test performance.

School	Grade	No.	Science 1	2	3	4	Social Studies 1	2	3	4
*Kwigillingok	1	2	2.5	4	4.5	10.5	5	5	4	5.5
*Eek	1	5	4.8	3.6	3.4	1.2	4.4			
*Kwethluk	1		NO SCORES							
+Bethel	1	5	2.8	3	2	4.4	4	2.6	2.4	3.8
+Togiak	1	3	7	6.3	3.7	5.3	4	5.6	3.3	5.3
+Kongiganak	1	2	3	4	3					
*Kwigillingok	2	4	6.3	5.5	4.5	6.8	6	6.3	3.3	4.3
*Eek	2	3	6.7	6	5	1.6	5.3			
*Kwethluk	2		NO SCORES							
+Bethel	2	5	6.4	0	4.4	3.8	6	6	4.2	8.4
+Togiak	2	1	3	5	4	4	5	1	1	5
+Kongiganak	2	6	2.8	3.3	2.5					

* = B.I.A. Schools + = A.S.O.S.S. Schools

CHART NUMBER TWO A: Raw Score Averages in Science and Social Studies of Grades One and Two in both A.S.O.S.S. Schools and B.I.A. Schools

School	Grade	No.	Science				Social Studies			
			1	2	3	4	1	2	3	4
*Kwigillingok	3	4	6.5	6.5	2.3	7.3	6.8	5	3.3	5.8
*Eek	3	3	6.6	5.6	7	9	7	7.3	5.3	7.6
*Kwethluk	3		NO SCORES							
+Bethel	3		NO SCORES							
+Kongiganak	3	6	4.8	7.5	4.7					
+Togiak	3	3	6.3	5.7	2.7	5.3	6.7	4	2	2
*Kwigillingck	4	4	7.5	7.5	5.5	9.3	7	5.5	4.8	7.3
*Eek	4	3	7	7	6.3	9.7	7.3	8	4.7	9
*Kwethluk	4	8	6.4	5.8	4.3	7.4	6.3	6	2.8	7.8
+Bethel	4		NO SCORES							
+Kongiganak	4	8	4.9	5.1	4.3	5.8	5	5.5	4.1	5.5
+Togiak	4	4	6.5	9	6	5.8	6.3	4.5	4	5.5

* = B.I.A. Schools

+ = A.S.O.S.S. Schools

CHART NUMBER TWO B: Raw Score Averages in Science and Social Studies of Grades Three and Four in both A.S.O.S.S. and B.I.A. Schools

School	Grade	No.	Science 1	2	3	4	Com.	Social Studies 1	2	3	4	Com.	Composi Sci & S
B.I.A.	1	7	3.6	3.8	4.0	5.9	4.3	4.7	5	4	5.5	4.8	4.6
A.S.O.S.S.	1	10	4.3	4.4	2.9	4.9	4.1	4	4.1	2.9	4.6	3.9	4.0
B.I.A.	2	7	6.5	5.8	4.8	4.2	5.3	5.7	6.3	3.3	4.3	4.9	5.1
A.S.O.S.S.	2	12	5.7	4.2	3.6	6.4	5	5.5	3.5	2.6	6.7	4.5	4.8
B.I.A.	3	7	6.6	6.1	4.7	3.2	6.4	6.9	6.2	4.3	6.7	6	6.2
A.S.O.S.S.	3	9	5.6	6.6	3.7	5.3	5.3	6.7	4	2	2	3.7	4.5
B.I.A.	4	15	7	6.8	5.4	8.8	7	6.9	6.6	4.1	8	6.4	6.7
A.S.O.S.S.	4	12	5.7	7.1	5.2	5.8	6	5.7	5	4.1	5.5	5.1	5.5

CHART NUMBER TWO C: Averages by Grade for all B.I.A. Schools versus those of A.S.O.S.S. and Composite Score in each Subject by Grade Level for Combined B.I.A. and A.S.O.S.S. Schools

The IOWA Tests of Basic Skills

The IOWA Tests of Basic Skills Form 3 was administered in A.S.O.S.S. schools beginning with fourth grade. The schools took the tests in late September or early October and again in late March or early April each academic year. Teachers of the various grades administered the tests.

The skills measured by the IOWA Test are:

- Vocabulary (Test V)
- Reading Comprehension (Test R)
- Language Skills (Test L)
  - Spelling (Test LI)
  - Capitalization (Test L2)
  - Punctuation (Test L3)
  - Usuage (Test L4)
- Study Skills (Test W)
  - Map Reading (Test WI)
  - Reading Graphs and Tables (Test W2)
  - Knowledge and Use of Reference Materials (Test W3)
- Arithmetic Skills (Test A)
  - Arithmetic Concepts (Test AI)
  - Arithmetic Problem Solving (Test A2)

Scores for the fourth grades in each of the school program sites are shown in the charts, with the exception of Atmautluak and Bethel. Decision to exclude these two villages stemmed from the fact that Atmautluak does not have a fourth grade in the bilingual education program, and Bethel's fourth grade had a variety of program approaches in its three years with the bilingual program. The scores and their significance will now be discussed.

Explanations of Charts and Comments on Test Scores

Chart Number Three A shows the results of the IOWA Tests of Basic Skills for Fourth Grades in Fall 1974 and Spring 1975. The Spring scores will be used in comparison with other Spring scores. Fall scores are only included for anyone interested in finding out what progress the students made in six months of instructional time.

Chart Number Three B shows the results of the IOWA Tests of Basic Skills for Fourth Grades only for Spring 1973 and Spring 1974.

Chart Number Three C shows the IOWA Tests of Basic Skills for Fourth Grades Spring 1972.

Chart Number Four A shows the Spring averages of the results of the IOWA Tests of Basic Skills for Fourth Grades for 1972, 1973, 1974, and 1975. It also shows an averaged total in each subtest for the three years, 1972, 1973, and 1974, when students did not have bilingual instruction.

Chart Number Four B is a graph showing the averaged results of each subtest in the years without bilingual education versus the one for 1975 which had bilingual education.

Chart Number Four C shows the composite average of all subtests for the years before bilingual education versus 1975 which had bilingual education.

Chart Number Five shows a summary of the differences in the average of the subtest scores for all three years of non-bilingual education and the average scores for the fourth grade that had three years of bilingual education in the three villages of Kongiganak, Manokotak, and Togiak.

RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES CHART THREE A

FALL 1974 and SPRING 1975

	SCHOOL	NO.	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
Fall	Aleknagik	1	21.0	22.0	19.0	25.0	30.0	17.0	23.0	28.0	21.0	34.0	28.0	29.0	30.0	30.0	25.0
	Kongiganak	10	22.4	18.5	21.6	23.4	30.4	24.1	24.3	24.4	31.0	24.0	27.5	24.2	27.5	25.9	23.7
	Manokotak	12	24.9	29.7	31.5	27.5	30.3	27.1	29.0	27.3	29.1	28.0	28.3	29.5	27.5	28.4	28.2
	Togiak	18	23.5	26.3	36.0	34.7	35.5	28.5	30.7	32.7	32.6	35.2	33.6	31.7	34.8	33.2	29.9
	Twin Hills	4	24.0	25.0	22.5	28.5	28.5	25.0	26.0	31.3	29.3	28.8	29.8	28.5	27.0	27.5	26.5
Spring	Aleknagik	1	30.0	39.0	32.0	19.0	32.0	23.0	26.0	23.0	23.0	36.0	27.0	29.0	35.0	32.0	31.0
	Kongiganak	9	27.6	23.2	31.0	23.7	34.2	28.2	30.3	29.4	31.7	28.6	30.0	34.3	30.3	32.1	28.7
	Manokotak	12	28.3	28.9	30.4	28.6	28.4	29.0	29.2	31.8	29.0	35.8	32.2	30.0	31.8	31.0	29.9
	Togiak	18	29.1	31.5	46.4	36.0	35.9	31.1	37.3	34.5	34.6	41.1	36.7	35.7	36.9	36.4	34.2
	Twin Hills	4	26.5	21.8	33.3	42.5	40.3	26.0	35.5	33.5	35.8	31.0	33.8	39.0	41.5	40.0	31.3

The students in Kongiganak, Manokotak, Togiak, and Twin Hills have had their first three years of school instruction using Yup'ik as the medium of instruction and learning English as a second language.

RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES — CHART THREE B

SPRING 1973 and SPRING 1974

	SCHOOL	NO.	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
1973	Aleknagik	2	39.0	42.5	41.0	41.5	43.0	42.0	42.0	45.0	43.0	39.0	42.0	44.5	39.0	41.5	41.5
	Kongiganak	15	26.0	30.9	40.3	31.0	34.6	28.1	33.4	37.3	33.3	34.5	35.1	31.0	32.3	31.7	31.5
	Manokotak	13	25.9	28.1	33.5	29.5	31.0	26.5	30.1	32.9	32.2	31.8	32.2	31.1	28.8	29.8	29.2
	Togiak	11	28.5	30.3	31.2	27.5	27.5	25.9	27.9	36.5	35.7	30.9	34.4	31.8	33.0	32.2	30.6
	Twin Hills	3	32.7	32.0	49.0	42.7	46.0	39.7	44.3	36.3	33.0	36.7	35.3	39.3	37.7	38.7	36.7
1974	Aleknagik	2	50.5	41.5	42.0	44.5	44.5	39.0	42.5	42.5	53.5	41.0	45.5	43.0	34.0	38.5	43.5
	Kongiganak	10	28.0	29.5	30.8	28.6	31.0	31.4	30.6	37.4	31.7	36.1	35.2	32.8	33.6	33.2	31.4
	Manokotak	11	34.5	31.7	36.9	29.5	30.0	25.4	30.5	30.3	30.1	36.1	32.2	30.0	29.2	29.8	31.5
	Togiak	14	26.6	27.9	34.5	29.1	31.8	26.6	30.5	33.8	31.4	40.7	35.4	32.2	34.7	33.6	30.8
	Twin Hills	4	28.8	35.0	34.5	35.3	39.8	30.3	34.8	39.5	31.5	31.8	34.3	36.3	35.8	37.0	33.8

English has been the medium of instruction for all of these students for all of their years in school.

RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES — CHART THREE C

SPRING 1972

	SCHOOL	NO.	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
1972	Aleknagik	12	40.6	40.0	52.3	47.8	49.5	41.6	47.8	45.2	40.3	48.3	44.4	41.5	44.5	43.0	43.9
	Kongiganak	4	31.5	30.3	43.0	39.0	37.3	31.3	37.5	32.8	35.8	35.8	34.5	31.8	28.3	30.0	32.8
	Manokotak	8	28.5	22.8	41.5	35.5	34.9	27.8	34.9	38.0	33.3	34.9	35.5	34.3	31.8	33.0	31.0
	Togiak	14	26.5	28.1	36.9	30.9	30.7	31.1	32.2	35.3	32.6	31.1	33.0	35.6	32.8	34.3	30.8
	Twin Hills	2	26.0	27.0	20.0	24.5	24.0	23.0	23.0	38.5	29.5	27.5	32.0	31.5	25.0	28.0	27.5

English has been the medium of instruction for all of these students for all of their years in school.

CHART FOUR A

RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES (spring)

for the villages of: Aleknagik, Kongiganak, Manokotak, Togiak, Twin Hills

YEAR	NO.	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
1972	40	30.6	29.6	38.7	35.5	35.2	30.9	35.1	38.1	34.3	35.5	35.8	34.9	32.5	33.7	33.2
1973	44	30.4	32.8	39.0	34.4	36.4	32.4	35.5	36.7	35.4	34.6	35.8	35.5	34.2	34.8	33.9
1974	41	33.7	33.2	35.7	33.4	35.4	30.5	33.8	36.7	35.6	37.1	36.5	34.9	33.5	34.4	34.2
TOTALS	125	31.6	31.8	37.8	34.5	35.7	31.3	34.8	37.1	35.1	35.7	36.1	35.1	33.4	34.3	33.8

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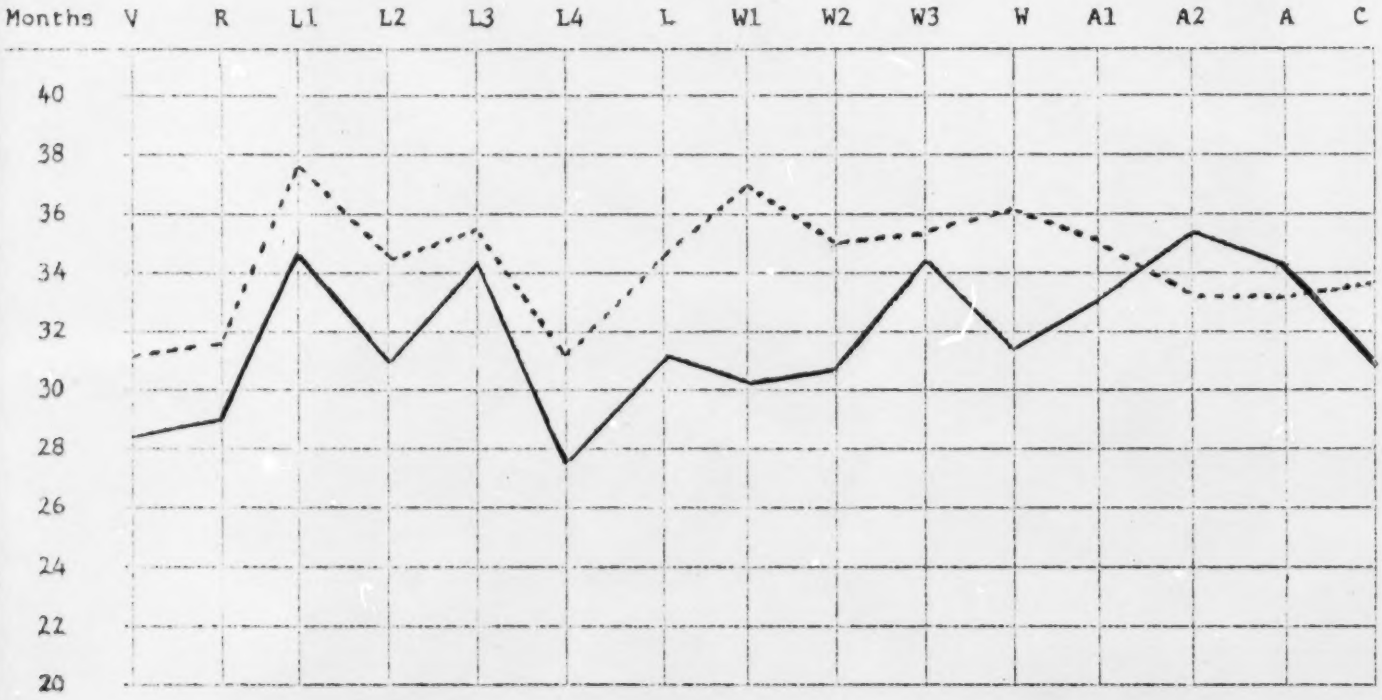
RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES (spring 1975) for the villages listed above.

This is the first year that the fourth grades have been taught completely in Yup'ik with English taught as a second language.

YEAR	NO.	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
1975	44	28.3	28.9	34.6	31.0	34.2	27.6	31.7	30.4	30.8	34.5	32.0	33.6	35.1	34.3	31.0

CHART FOUR B

COMPARISON OF THE AVERAGED RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES in the villages of: Aleknagik, Kongiganak, Manokotak, Togiak and Twin Hills for spring 1972, 1973, and 1974, with the average of the scores for the same schools for spring 1975

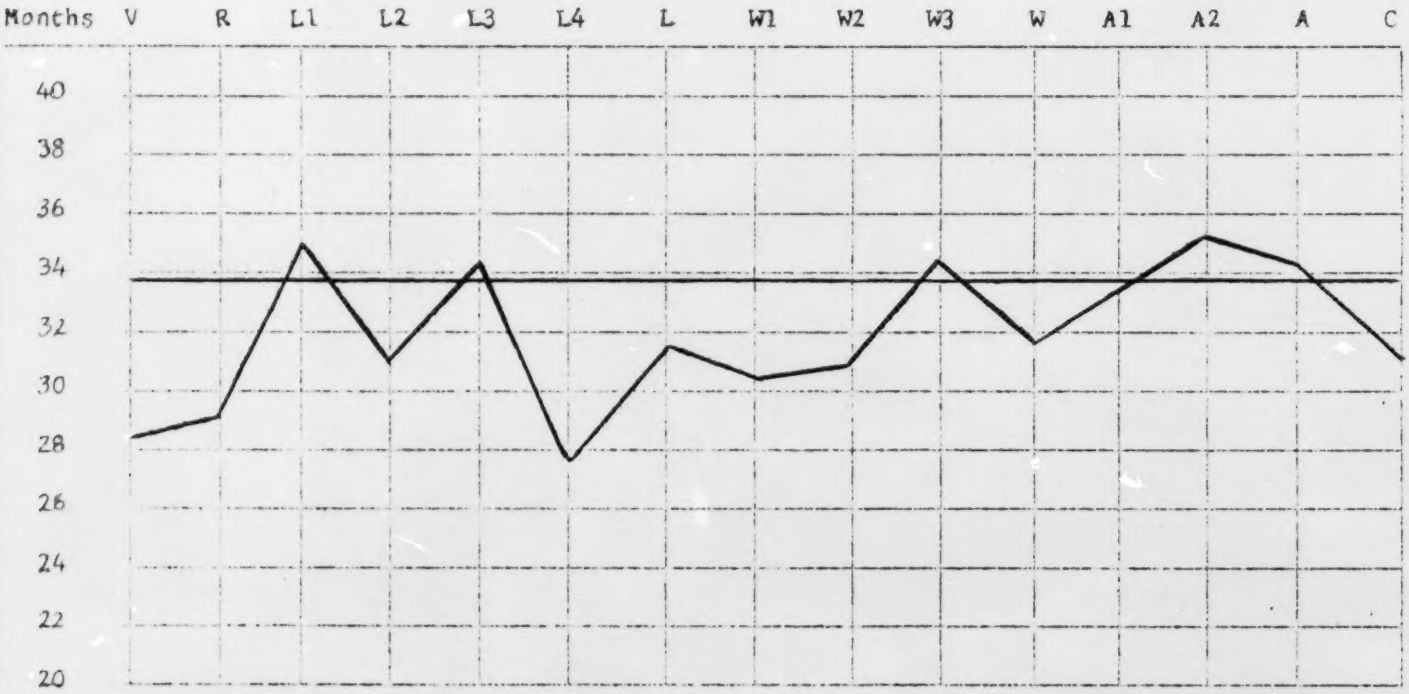


The three-year average for each subtest in the Iowa Tests of Basic Skills for Fourth Grades has been plotted. This graph presents these averages and the 1975 average for the schools mentioned above. The scores for 1972, 1973, and 1974, are for children who had all of their instruction in English. The scores for 1975 are for children who received their instruction in Yup'ik with English taught only as a second language.

1972, 1973, 1974 (non-bilingual)- - - - - - - - 1975 (bilingual) ————————

CHART FOUR C

COMPARISON OF THE AVERAGED RESULTS OF THE IOWA TESTS OF BASIC SKILLS FOR FOURTH GRADES in the villages of: Aleknagik, Kongiganak, Manokotak, Togiak and Twin Hills for spring 1972, 1973, and 1974, with the average of the scores for the same schools for spring 1975



The composite score of Aleknagik, Kongiganak, Manokotak, Togiak and Twin Hills for the three years of 1972, 1973, and 1974 is 33.8 months. This is represented by the line across the chart at that point. The average of the scores for the same schools in 1975 are graphed. This shows the difference between the norm for the three years previous to 1975 (non-bilingual) and 1975 (bilingual).

School	V	R	L1	L2	L3	L4	L	W1	W2	W3	W	A1	A2	A	C
Kongiganak	-0.9	-7.0	-9.6	-4.2	-0.1	-2.1	-3.5	-6.4	-1.9	-6.9	-4.9	+1.9	-1.1	+0.5	-3.2
Manokotak	-1.3	+1.4	-6.9	-2.9	-3.6	+3.0	-2.6	-2.1	-2.9	+1.5	-1.1	-1.8	+1.9	+0.1	-0.7
Togiak	+1.9	+2.7	+12.2	+6.8	+5.9	+3.2	+7.1	-0.7	+1.4	+6.9	+2.4	+2.5	+3.4	+3.0	+3.5

CHART NUMBER FIVE: A summary of the Achievement Score Differences Between Fourth Grades Without Bilingual Education Instruction and the Fourth Grades With Bilingual Education Instruction.

The three villages of Kongiganak, Manokotak and Togiak were chosen because they are representative of the program types that are compared. Aleknagik and Twin Hills were not included here because their enrollments were too small. In addition, Aleknagik's program is YSL instead of YFL. Each village is compared against its own fourth graders.

Whole numbers indicate whole months. Fractional numbers indicate fractions of months. A minus sign (-) indicates that fourth grade with bilingual education experience is behind the fourth grade without bilingual education experience. A positive sign (+) indicates that fourth grade with bilingual education is ahead of the fourth grade without bilingual education.

Results in General

It is often the practice in education to use the results of the standardized tests to judge the effectiveness of different approaches to learning. The results of the IOWA Tests of Basic Skills were used in this manner to arrive at such a deterimination about the effectiveness of bilingual education as compared to non-bilingual education on the academic achievement of the fourth graders in Kongiganak, Manokotak and Togiak.

The results of the IOWA show the difference between the two approaches to be marginal. A total of .4 of a month of grade placement in school in favor of the non-bilingual approach is all the difference that exists. It would be erroneous, however, to conclude on this basis that there should be no difference as to a choice in educational approaches for the Yupik Schools where the children begin as monolinguals. On the contrary, results of the IOWA provide a clue as to how educators might go about choosing between one approach or the other.

The clue that the IOWA gives is this:

> In the investigation of the results, a unique pattern of academic achievement was shown for each village. This pattern was not changed with the introduction of bilingual education.*

With this finding in mind, it becomes apparent that investigations of other variables within each approach should be made. Determination of these variables and how they influence academic achievement is crucial.

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*Similar conclusions have been made by Giroux and Ellis in 1968 when they examined French-speaking children who learned French for the first three years and switched to English for the last three. The children's reading in the sixth grade was only equivalent to the fourth grade level which was a situation that had existed in the same school for years.

Interestingly enough, some of these variables are often the ones mentioned as advantages of the bilingual education approach. They include the following:

1. The teacher's ethnic identification, training and relationship with the community. A study by Modiano in 1973 showed that Indian children learn to read more in Spanish from Indian teachers with less formal training then they did from non-Indian teachers.* Another study showed teacher quality as well as other teacher variables accounted for 83% in the variance of the achievement of elementary school students, and that initial primary instruction in English is not significantly related to achievement seven years later in a language test.*
2. The student variables of self-concept, language behavior, attitude towards school, etc. Studies such as those conducted by Lavallee and others show that children become frustrated and upset when they first enter a totally foreign language classroom.+ The children in the bilingual group had the advantage of learning in their own home language in addition to gaining literacy skills in their native tongue. These alone probably had an effect on the above student variables which could positively influence academic achievement.

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*N. Modiano, 1973. Indian Education in the Chiapas Highlands. New York: Holt, Rinehart and Winston.

+M. Lavellee, "Piagetian Stages and the Acquisition of a Second Language (French)." Progress report on a doctoral dissentation.

3. The community variables of attitudes towards various progress and the use of a particular medium for instruction. Linguists such as Weinreich have said that when a language is threatened, language loyalty (to one's own language) becomes stronger which would impede the learning of a second language. On the other hand, as the need to defend a mother tongue decreases, the child may be more open to learning a second language. One may add here that the parents may also be more open to accepting the child's efforts to learning a second language because of the phenomenon. Teachers in the Yupik bilingual program have reported that parents are "very supportive of the bilingual program." Furthermore, they are "very proud of their children's ability to read and write in their Native tongue," a skill which they themselves have not acquired. Parents' pride in their children's academic ability and their supportive attitude of a particular approach to education are factors that are likely to have positive influences on the children's academic achievement.

In view of the advantages of the bilingual education approach, it would be foolish to choose a non-bilingual approach for Yupik schools where the children are monolinguals when they start school. It is better to give these students the extra advantages they are presently receiving with bilingual education such as:

1. Gaining literacy skills in their Native tongue.
2. Beginning school in the home language.
3. Learning from a Native teacher who brings other relavant cultural traits to the learning situation.

4. Being supportive and esteemed by the community and their parents.

In conclusion, it is almost very hard to believe that the students in bilingual education are doing very well after being in the program for only three years, for other studies of similar programs indicate that at least four years are necessary for a bilingual program to show positive effects.* The results shown thus far can only mean that bilingual education for the monlingual Yupik Children is a much more effective approach to education than the non-bilingual approach.

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*E.G. Malherbe, 1964. The Bilingual School: A Study in Africa. London: Green; and
P. Bovert, 1933. "Bilingualism and Education. "New Era in Home and School, 14, 161-163.